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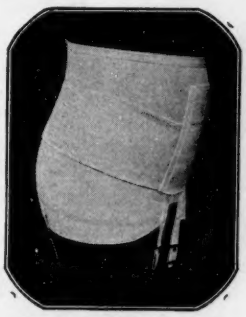

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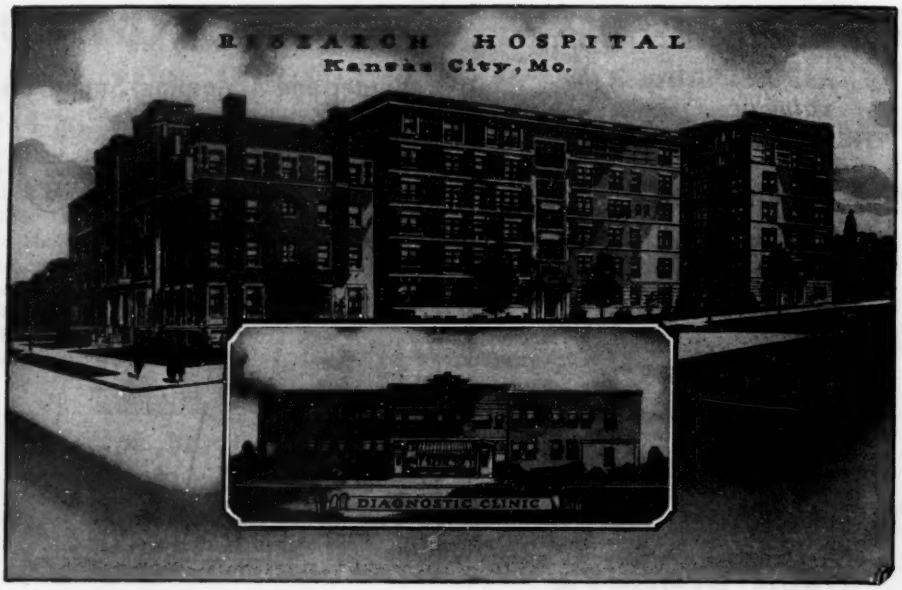

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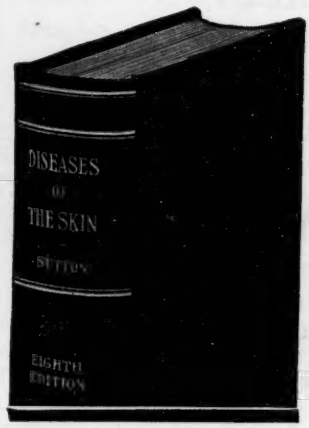

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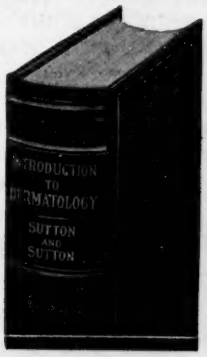

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VOL. XXXIV TOPEKA, KANSAS, MAY, 1933 No. 5

ORIGINAL ARTICLES

FRANKLIN E. MURPHY, M.D.

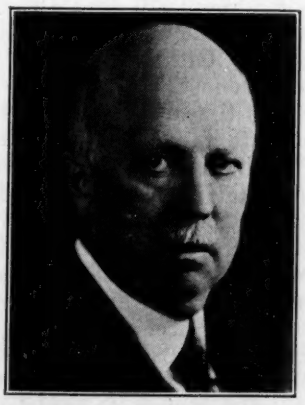
Dr. Murphy and the Medical Faculty

E. H. LINDLEY*

In 1911-12 Dr. Franklin Murphy became a member of the faculty of the school of medicine. The institution was still young and struggling. A teaching post in the faculty was not so attractive as it has become in later days.

Dr. Murphy, however, was profoundly interested not only in the advance of medicine, but also in the opportunity to deal with young men. He realized that one of the most certain means of growth in his science and art was through contact with his colleagues and with his classes. For more than a score of years he was recognized as one of the constructive forces in the development of the medical school.

As a teacher he held high standards for himself and for his pupils. In the midst of a busy practice he gave of his time without stint to his class work and to individual students.



Franklin E. Murphy, M.D.
1867—1933

In faculty conferences his counsels came to be regarded as unusually sound and wise. Although a man of intense sympathies, he had the gift of impersonal judgment; he possessed courage, also.

Soon after I became acquainted with Dr. Murphy I was impressed with these fine qualities, and more and more relied upon his judgment on matters within the field of his interest and experience.

He will be long remembered as a fine example of scientist-artist who had the passion to light the way for promising youth.

*Chancellor, University of Kansas.

Dr. Murphy as a Teacher

LOGAN CLENDENING, M.D.,*

The outstanding quality of Dr. Franklin E. Murphy's teaching was its absolute sincerity. One felt, constantly, in his presence that he had made an earnest effort to arrive at the exact truth, so far as such a thing was possible, and he presented, without bias, all the data on the subject, pro and con.

In 1905 he had just returned from an extended stay in German universities and was particularly interested in diseases of the blood. He gave us the benefit of the latest ideas from European clinics and his method whetted in all of us a desire to extend our clinical knowledge by contact with Continental masters.

The method of presentation would be that of the great Vienna clinicians. The patient was brought in and the history read and discussed in great detail. The physical examination was made from head to foot, before us.

Dr. Murphy was peculiarly well adapted to the technique of physical diagnosis.

*Department of Medicine.

He had delicate, small hands, and his percussion was particularly finished. He also had a good ear and frequently was able to hear murmurs and other auscultatory sounds that the class was unable to pick up. His long training in life insurance examination work had made him especially exact about all of these things.

He had, I remember, an old-fashioned, monaural stethoscope and could not be persuaded to use any other kind. And his influence was so strong that many of us used this instrument for several years. Personally, in the course of time I found that it was not adapted to my particular talents and I changed over to the modern binaural type, but for several years I felt disloyal about it.

It was method and character that he inculcated more than any particular body of doctrine. He was not, in fact, a particularly ready speaker, but rather slow and repetitious. What we did learn, and what we will always remember gratefully, is the thoroughness with which he taught us to make a complete physical examination and the undeviating intellectual integrity with which he taught us to analyze every detail of a clinical case.

Dr. Murphy as the Bed Side Physician

P. T. Bohan, M.D.*

In the death of Dr. Murphy medicine has lost a great clinician. Modest and unassuming in manner, his influence on the proper approach to the solution of a clinical problem has not yet, in my opinion, been fully appreciated.

When still a young man he realized that to be an internist in all that the word implies meant something more than merely to announce that he would confine his practice to internal medicine. To prepare himself he spent time, he spent money, he worked. For two years in Europe he received instruction and inspiration from the master clinicians of the past century: Neusser, Nothnagel, Senator, Leyden and Gohm.

It was from these men, that made the Vienna school famous, that he received his ground work as a clinician and as a bed side teacher. Vienna's influence on American medicine cannot be over estimated. Dr. Murphy thought, and many will agree with him, that "Minerva Medica had her chief temples on the Danube and not on the Spree." It was here that the young, ambitious, Murphy laid the foundation for his future professional career.

Returning to Kansas City in 1903, he immediately began to practice the methods of bed side instruction he was taught in Vienna. His success as a bed side clinician was in large part due not only to his ability to correlate the essential features in the clinical history and the facts obtained from a careful physical examination, but, also, to his ability to understand and adjust social and mental problems. In later years, though still emphasizing the importance of clinical history and physical examination, he was willing and eager for the information obtained from the laboratory and mechanical instruments.

Never ignoring a single word in the clinical history, never hasty in physical examination, always deliberate in his conclusions, his diagnosis was usually correct.

In Vienna, Dr. Murphy lived in the same Pension with Dr. B. W. Sippy, of Chicago, and they became very close friends. When I came to Kansas City, I brought with me a letter of introduction from Dr. Sippy to Dr. Murphy. Dr. Sippy said, "You will find Dr. Murphy not only one of the outstanding clinicians of the country, but a man who is strictly ethical and honest, and you can depend on him at all times." In my 25 years of fairly intimate association with Dr. Murphy, I found him to be everything that Dr. Sippy said and he never failed me but once. On this occasion I was sitting in consultation with him and the late Dr. R. T. Sloan. A slight disagreement came up between Dr. Sloan and me, regarding a certain procedure. From a little remark of mine, Dr. Sloan inferred that I had implied cowardice on his part, which he vehemently denied, and left it to Dr. Murphy. The decision was against me.

As a bed side clinician, Dr. Murphy was the type of man that Harvey Cushing had in mind when he said in a com-

*Department of Medicine.

mencement day address to a graduating class in a medical school, that he saw no reason why teacher, investigator, and practitioner, should not be combined in one single individual and he be none the worse for the mixture.

Dr. Murphy as a Medical Colleague

GEORGE M. GRAY, M.D.*

It is not strange that Dr. Franklin E. Murphy made the unusual success in the practice of medicine that is well known to all of us who were acquainted with his accomplishments, and that he gained the love and respect of his fellow physicians, the medical student who had the privilege of his teachings, and the patient who came to him for relief; when one considers the environment surrounding him as a young man prior to and following his entrance upon the practice of medicine. He was born in Indiana but spent his boyhood days in the state of Missouri where his father was a physician doing a general practice.

My first acquaintance with Dr. Murphy was when he began the practice of medicine in Kansas City, Missouri, about the year 1894 and during the period from 1896 to 1901 when he was secretary of the faculty of the Kansas City Medical College, in which I was Associate Demonstrator of Anatomy. Here he came in contact with such men as Dr. E. W. Schauffler, Dr. D. R. Porter, Dr. Jacob Block, Dr. J. D. Griffith, Dr. George Halley, Dr. S. S. Todd, Dr. B. F. Fryer, Dr. T. B. Lester, Dr. F. W. Johnson, Dr. W. C. Tyree and others of equally high standing in the medical profession. All of these men held teaching positions in the Kansas City Medical College and practiced the healing art in days when there were few rich people in Kansas City. Prevention of disease, alleviation of suffering and cure was their high purpose. Accumulation of money through this service was of secondary consideration. All of these men were of the highest type of citizens and thoroughly ethical. Their code of ethics was the golden rule which applied not only to their fellow physicians but to patients entrusted to their care. As a young physician under influences of this kind Dr. Murphy naturally absorbed and was influenced throughout his career by the outstanding characteristics of these men so that during his career in the practice of medicine, his honesty and ability were outstanding points in his life.

The selection by him of medicine for his life work was, I think, fortunate for the great interest he took in all professional matters and the interest he displayed in connection with the care of patients who came to him, all indicate that he was interested in his work and that he derived pleasure from the duties connected therewith. Again he was fortunate in selecting the lady he did for his wife. His home and family surroundings all warrant the conclusion that he had a very happy home life.

Dr. Murphy graduated from the University of Pennsylvania in 1893 when twenty-four years of age. He served four years as secretary of the Kansas City Medical College and spent two years in post graduate work in the principal medical centers of Europe, returning to Kansas City in 1904 and thereafter devoted his practice entirely to internal medicine.

Dr. Murphy had one outstanding characteristic or accomplishment, namely, that of remembering names and faces. He knew all of his friends by their first names and the esteem with which he was held by those associated with him in the practice of medicine, depended not alone upon his recognized ability as a physician but to the fact that he loved the people. He had really a great capacity for friendship shown by the esteem with which he was held by his fellow practitioners. He had no enemies and received honorable recognition at the hands of his fellow physicians as councilor of the Missouri Medical Association, a member of the Board of Health of Missouri and in 1909 as President of the Jackson County Medical Society. His death on February 20th was a real loss to the medical profession of this and adjoining states. Loyalty to friends and devotion to the profession he chose for his life work were his outstanding characteristics.

*Department of Surgery.

In conclusion I will quote from Edgar A. Guest on "Service."

To prove their wisdom and their strength
They builded pyramids of old,
But long ere time had run its length
The things were stark and still and cold.

To God they raised both tower and spire,
And lavished on them wealth and skill,
Lit adoration's incense fire,
But round the steps are beggars still.

By tedious toil the stones were piled,
At frightful cost were temples made,
Yet many a mother of a child
Looks out on life and is afraid.

I wandered through the ruins grim
And in my mind the fancy ran
That God's best love must go to him
Who labors for his fellow-man.

Resolutions of the Adminstrative Committee of the University of Kansas School of Medicine on the Death of Franklin E. Murphy, M.D.

In the death of Dr. Franklin E. Murphy the University of Kansas School of Medicine has lost one of its most devoted friends and the faculty mourns the loss of a brilliant teacher and a beloved colleague. We desire to express to Mrs. Murphy, Franklin, George and Cordelia our heartfelt sympathy and our deep and sincere feeling of loss and to assure them that the University of Kansas School of Medicine will always cherish his memory. We admired Dr. Murphy for his professional ability; we respected him for his high conception of his profession, its duties, privileges and obligations; we loved him as a true and faithful friend. His example has been an inspiration to us, his influence has been profound and far reaching, his memory will live in the years to come.

RALPH H. MAJOR
THOMAS G. ORR
C. C. NESSELRODE.

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AmpleAir.—The purpose of the AmpleAir Filtering Machine is to filter the air supplied to a small office room or bedroom, and more particularly for ridding the air of pollen as an adjunct for the relief of hay fever symptoms. In case of either extremely cold or extremely hot weather a recirculating damper in the entrance duct can be turned, thus stopping the incoming air and recirculating and filtering the air within the room. It is claimed that the AmpleAir will supply sufficient filtered air for a small office or bedroom occupied by two or three people and will serve as an adjunct in the relief of symptoms of hay fever. Independent Air Filter Company, Chicago. (Jour. A.M.A., February 18, 1933, p. 497.)

OIL OF WINTERGREEN (METHYL SALICYLATE) POISONING
Report of Case

HUGH L. DWYER, M.D.*

Oil of wintergreen is commonly used as a household remedy for rubbing painful joints. Very few people are aware of the fact that fatal poisoning may result when a young child swallows a small quantity. It has been stated that 5 to 6 cc., or one to two teaspoonsful will probably cause death in a child unless adequate antidotal measures are immediately instituted.

The following case report will illustrate the dangers of having this powerful drug in the home within the reach of children:

CASE REPORT

M. J., a girl aged 15 months, just before being put to bed one evening, drank from a bottle of oil of wintergreen that was opened preparatory to applying it on her neck for swollen cervical glands. About an hour later she vomited and this continued at intervals throughout the night. She drank large quantities of water but was unable to retain it long. By morning she was having frequent involuntary bowel movements and was brought to the hospital at 7 a. m., ten hours after ingestion of the drug.

PHYSICAL EXAMINATION

She was a very well nourished child, the pupils were dilated, the tongue was extremely dry, she took water ravenously but it was immediately rejected. There was marked air hunger, cyanosis and convulsive twitching of the arms and legs. The temperature was normal. The heart was rapid and coarse gutteral rales were heard throughout the chest. Her eyes were sunken and glassy, and her dry lips and skin gave evidence of marked dehydration. She passed much flatus and small stools which had the odor of wintergreen. The urine reacted for acetone and diacetic acid. The CO_2 combining power was 36.5 per cent by volume. The blood serum and urine gave positive reactions for salicylates.

The treatment was directed toward combating the acidosis, dehydration and cyanosis. A large amount of water hav-

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ing been rejected by the stomach it was felt that it was too late to expect any benefit from lavage. She vomited immediately when soda bicarbonate solution was given, proctoclysis was attempted but it was not retained. Hypodermoclysis of Hartman's solution and 2 per cent glucose was started and she was placed in an oxygen tent. The color improved for a short time but the breathing became stertorous, the convulsions generalized, the feet slightly edematous and death occurred three hours following her admission.

POST-MORTEM EXAMINATION

Briefly, this revealed numerous subpericardial hemorrhages in the heart and lungs; the heart was dilated and flabby; the bronchi were clear, no pneumonic areas were found but considerable blood exuded from the cut surface of the lung. On section, a slight lymphocytic infiltration was present around the bronchi.

The liver weighed 750 gm.; was a deep reddish-purple color and from the cut surface exuded a large amount of blood. Section showed that the central veins and sinusoidal endothelium stood out distinctly. The spleen was slightly enlarged, weighing 88 gm. the cut surface was congested and sections showed prominence of the malphighian bodies. The kidneys, weighed 94 gm. and the cut surface showed a reddish-purple congested surface. Cloudy swelling of the tubule epithelium was noted. The bladder urine also gave a positive reaction for salicylates.

The mucosa of the intestinal tract was normal, as also was the lymph glands, thymus, supra-renal glands and pancreas.

COMMENT

Wetzel and Nourse in 1926 reported a case of fatal poisoning in an infant 21 months old after taking 10 cc. of oil of wintergreen. Judging from these and the cases recorded since that time the lethal dose is small, according to Wetzel and Nourse about 0.5 cc. per kilo, or slightly less than two teaspoonsful for a child of three years with an average weight of 32 pounds. The toxicity they say, may be ascribed to the fact that the drug is slowly destroyed within the body. They found unchanged oil in the urine of their patient about 30 hours after ingestion.

Olmstead and Aldrich in 1928 reported two cases of methyl salicylate poisoning in children, both of whom recovered. These authors stress the importance of the acidosis which they believe is a renal acidosis the cause of which remains in doubt. They attribute the successful outcome of their two cases to the large amount of soda bicarbonate taken by mouth; they also gave 5 per cent dextrose hyperdermically. A review of the literature by Olmstead and Aldrich revealed ten fatal cases of methyl salicylate poisoning, three of which occurred in children after taking oil of wintergreen.

The principal effect of the drug is on the nervous system. This is probably due to a direct action on the medulla because the symptoms come on rapidly after the drug enters the stomach. It is also possible that it is the result of small hemorrhages into the parenchyma of the brain or more diffuse meningeal hemorrhages.

The congestion of the visceral organs and the multiple subserous hemorrages suggest that the drug has a powerful toxic effect on the capillaries.

In the present case the outstanding clinical symptoms were protracted vomiting, hyperpnoea and dehydration. The course was rapid, death occurring 13 hours after ingesting the oil of wintergreen, the quantity of which was less than 4 teaspoonsful and was estimated at 2 teaspoonsful.

The treatment should be directed toward overcoming the acidosis by large amounts of soda bicarbonate by mouth and by rectum, as well as glucose solution intravenously and subcutaneously. In the case of an infant that is vomiting violently, this may be very difficult.

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SCOLIOSIS IN CHILDREN

C. B. Francisco, M.D., F.A.C.S.*

Scoliosis which is lateral curvature of the spine with rotation, apparently is on the increase. One factor is the increase of infantile paralysis which so often unbalances the muscles of the back in growing children resulting in curvatures. One also gets the impression there is an increase in the number of so-called idiopathic curvatures of the spine that occurs in the pre-puberty stage. However, this may be due to the fact that parents are presenting their children for examination in such cases more than they formerly did. For years I have been impressed with the fact that the large percentage of these cases I have seen lived in the country or in small towns; rarely was a case seen that lived in the city.

There are three recognized causes of scoliosis: first, congenital anomalies, such as, wedgeshaped or absent bodies, fusion of the ribs, extra or absent ribs or other anomalies accounting for a rather small per cent of the number of the cases. The second cause is the result of disease, such as infantile paralysis and empyema with resection of the ribs. The third cause is the so-called developmental type which occurs most often in girls; perhaps 90 per cent of the cases are in girls and usually noticed about the age of 12 years which is the beginning of cessation of growth and the change from childhood to maturity, but may occur around the age of 5 which is the period characterized by the change of babyhood to childhood and associated with the closing of the centers of ossification in the bones. When a curvature is noticed at the latter age an unrecognized attack of polio should be thought of.

There has always been the feeling that the ductless glands were possibly a factor in determining the degree of scoliosis that might result in a given case. Certainly there is a general unstable condition in some of the extreme types of scoliosis suggesting that the general bone metabolism must have been interfered with in some way to have produced such extreme deformities. At the present time there is no definite information on what the endocrine disturbance is, if it is a factor in causing or aggravating the condition.

In the congenital type there may be no evidence of deformity until the child is able to sit up or even begin to walk but a curvature noticed at these periods is very likely to be the result of a congenital anomaly of the spine or ribs, if there is no history of the child having had infantile paralysis. These cases can usually be proven by x-ray, and the management of them is rather difficult. Anything that will tend to straighten their spine will interfere with their growth and development, therefore, one usually limits their efforts to plaster shells to be worn when sleeping and to promote their general welfare, putting on day supports as indicated. Some of these cases apparently do well but the tendency is for them to gradually get worse. One often sees evidence of slight congenital anomalies in the pre-puberty type of developmental scoliosis and one cannot help but be impressed with the idea that they may be a factor in some of these cases.

The polio cases are usually quite evident soon after the onset of attack of paralysis, but occasionally may be delayed in the development until the pre-puberty stage and then one is in doubt as to what extent the paralysis is the cause of the condition. It will, therefore, be seen that the pre-puberty stage is the important stage in the development of the child and this period which corresponds to the maturity of animals the importance of which has long been known to the breeders of fine stock, but it is only recently that any attention has been paid by those interested in this work to the special care of children at their maturing age. Every child after it reaches 11 years should be rather carefully watched as to diet and as to its development. At about this age children begin taking their own baths and the parents sometimes do not see their children's back for quite some period of time and then are very much shocked at accidentally observing their curvatures. It is my impression that this type of curvature progresses

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rapidly for the first three or four weeks after which the progress is rather gradual. I have had the experience of observing a slight curvature in a child that had not been previously noticed in the course of a routine examination and would therefore be in doubt as to the length of time it had existed. These cases were always requested to return in a week at which time a very definite increase in the deformity could be noted.

In seeking a possible explanation as to why there are more cases occurring in the country than in the city I was struck by the fact that country children as a rule drink less milk than children in the city although they have a great supply of milk. Possibly the handling of the milk creates a distaste for it. I have become convinced that milk is a necessary food for maturing children and one almost never observes a lateral curvature in a child who is not and has not definitely been a non-milk drinker. I have been so impressed with this observation that I have remarked that all of the developmental pre-puberty types of scoliosis could be prevented by giving all the children plenty of milk over this period of time. I do not mean to say that every child that does not drink milk during their pre-puberty years will necessarily develop a lateral curvature, but I do say that with very few exceptions children that develop lateral curvatures are non-milk drinkers. I feel that this observation should be passed on to the parents believing they would insist on the children drinking milk if the importance of it was realized.

None of these structural cases can be cured. Therefore, it is quite important that the condition be recognized early and the child put to bed in order to relieve the weight of the superimposed head and shoulders as it is this weight which causes the softened bones to become deformed. After a period of rest in bed, nature seems to be able to make some progress in the hardening of these bones and they can then be gotten about with supporting braces, taught exercises and improved, or at least prevented from getting worse. They should wear supports as long as they are growing. This means that the case that resulted from infantile paralysis or congenital anomaly may have to be observed and watched over a long period of time.

Our usual plan of treatment at Bell Hospital is to place these children on Bradford frames with Morrell saddles for about six weeks, then get them up in a well fitting back brace. After they have their brace they are sent to the Physical Therapy Department where they are taught self corrective exercises and kept in the hospital some three or four weeks or until they have learned to do the exercises well. They are then sent home with their frame and instructed to sleep on it every night and wear their brace during the day and asked to report back for observation in three months, and to keep in touch with us, and keep up the exercises.

The question of stabilizing these scoliotic spines by operative procedure has I think been rather disappointing although may be a valuable aid in certain types of cases but as long as the bones are growing, even if a stabilizing operation is done, one has to continue with support on account of the unequal weight bearing that results from the deformity. Personally, I feel that the operation of stabilization is of more benefit in the paralytic than in the developmental case for the reason that in the developmental case one usually gets a compensatory curve, that is, the "S" curve, that balances the back in very much the same way that the posterior curve in the upper dorsal region balances the anterior curve of the spine in the lumbar region. In congenital anomalies and poliomyelitis as well as in the rib resection cases, the curve is apt to be poorly compensated and the bodies less rotated which offer a better opportunity for a bone graft along the curve to become supporting.

I feel that it is important to realize that these cases are accidental, meaning that we all go through this developmental period and that with faulty diet or some upset in our metabolism incident to the changes of growth which may be sufficient to disturb the balance that controls bone development that nature is able to correct in time but the damage cannot be

changed. These individuals should be impressed with the fact that they are perfectly normal persons, capable of living normal lives and encouraged to do the normal things in life, being warned that they should avoid excessive physical exertion.

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SOME PHASES OF CONGENITAL SYPHILIS

CHARLES C. DENNIE, M.D.*

One must always keep in mind that congenital syphilis and the acquired type are two entirely different and distinct diseases. So distinct are they that the differentiation can be made between the two from clinical observation alone. The manifestations of the acquired disease in the adult are the result of the action of the Spirochetae pallidae upon the adult cell. The manifestations in the congenital type are the result of the action of this same organism upon the embryonic and immature cells.

The stigmata of the congenital type are the result of the interference with the growth of the embryonic cell. From such interference in the early life of the embryo are developed the well known characteristic details such as Hutchinsonian teeth, the teeth of Henri Moon, lack of development of the upper jaw, bulging forehead, nasal spurs, syphilitic hydrocephalus, large veins in the scalp, and a little later, interstitial keratitis and a host of other signs and symptoms. No matter how thorough the treatment of the child may be (ex utero), he will develop one or all of these signs in spite of it. The influence upon the embryonic cell is indelible.

A child who develops these manifestations with or without treatment, must have received the syphilis infection while in the embryonic state. The train of calamities that befall him in later life is the tragic part of this disease.

His life is shortened. Were it not so there would be many individuals running about the streets with Hutchinsonian teeth or interstitial keratitis. Yet these two findings are so rare that an individual so afflicted who has reached the age of 35 years is a curiosity even to those skilled in the detection of this disease. Even the layman, radio and pseudoscientifically educated as he is, would recognize the condition. Yet the skilled observer is familiar with these signs in children and considers it an every day occurrence. Less than two decades ago the syphilographer would hesitate to make a diagnosis of congenital syphilis unless the triad of Hutchinsonian findings were present. Hutchinsonian teeth, interstitial keratitis and deafness. The present day syphilographer recognizes the fact that less than five per cent of all those afflicted with this congenital disease have these signs. One cannot say that this entire group of children are mentally deficient yet their mentality is far below that of children who are free of this disease. I would estimate from the work we have done that their I. Q. is about seventy per cent. It is true that in later life a certain percentage of these children may not have any evidence of cerebrospinal syphilis that one is able to detect, either by serological findings or clinical observation, yet in their embryonic life they were perhaps entirely flooded in all their parts by the organism of syphilis. The influence upon the primitive developing cells of all parts of the body must have been terrific. How could the brain escape? These children are more susceptible to all the infectious diseases than normal children.

Not only has the primitive cell been hampered in its formation of distinct tissues but these developed tissues are low in their immunization index to such an extent that they are easy prey to the invading organisms of other varieties. The lymphatic system is enlarged out of all proportion. The reticulo-endothelial system as a whole is stimulated to its greatest height; consequently the resistance to ordinary infection is very low. Skin infections, middle ear abscess, mastoiditis, pneumonia and other infectious diseases are responsible for the death of almost 50 per cent of these children, before they have reached the age of three months.

Their physical growth is retarded.

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When we see a child who will not gain weight in spite of the fact that he takes his full quota of food, has no intestinal troubles and is suffering from no other diseases except perhaps mild anemia, we immediately suspect congenital syphilis and half the time we are correct*. Proper treatment of these children with the anti-syphilitic remedies is often responsible for rapid growth. Quite often a diagnosis of rickets is made and treatment along that line is responsible for some improvement. But quite often a rickety child with a negative Wassermann reaction is really a syphilitic child in the silent phase of that disease. Nearly all congenital syphilitic children belonging to this group have some degree of rickets. The converse is not true. The large square head of the pubescent syphilitic is often due to a varying grade of internal hydrocephalus. I do not believe that it is always possible to absolutely differentiate between rickets and congenital syphilis in spite of the so-called difference in the pathological findings in their skeletal systems.

It is in these types of children that the most bizarre findings develop. Conceding that the Spirochatae pallidae gains entrance to the embryo soon after it begins to grow, it is entirely possible, for the developing body to pass through all the stages of syphilis before it is born for it seems that the course of the disease is shortened in an amazing manner while in utero. When the child is born the disease may escape coarse detection and the Wassermann reaction may be entirely negative and remain so for many years or for the life time of the child.

Findly is responsible for the statement that these children may drift toward a positive Wassermann at the age of five years. The signs that these children later show have their inception at the beginning of embryonic life and in all probability in their developed state represent a stage of syphilis even beyond the tertiary state. This fact has an important bearing upon the adoption of children. This silent phase so characteristic in all type of syphilis is responsible for many mistakes in the diagnosis of syphilis in the new born. Such disease as simple optic atrophy and congenital deafness may be in some instances at least but the result of a rapid fire syphilis running its course while the child is in utero. We know for certain that of all the children who develop skin lesions at or before the age of six months, 50 per cent have positive findings in their cerebrospinal fluid. That involvement had its beginning in the unborn child. In most of the children who belong to this group, the organism of syphilis is implanted into their bodies before the formation of their skeletal system.

The second group of children are the ones in whom the infection is implanted sometime between the formation of the skeletal system and birth. These children present an entirely different aspect. They may often escape most of the visible signs of the disease. A large number bear no stigmata. Twenty-five per cent of all the children in our clinic belong to this group and are classified as latent syphilis. They may have some indefinite findings such as epitrochlear or inguinal glands. The parents may tell you that during the period of infancy the child was strong but was slow in school or physically weak but were it not for the fact that they were one of a syphilitic family or the finding of a positive Wassermann reaction when their blood was examined, one would not dare to make a diagnosis of congenital syphilis. These children must have had the infection later in their intra-uterine life for how else could we account for this strange occurrence. The nearer the infection was implanted in the relation to their birth, the more likely are the subsequent signs and symptoms to resemble those seen in the acquired type.

The children that belong to this second group are not nearly so likely to suffer many of the disasters that fall upon the embryonic type. They are not so likely to suffer from passing infections; they suffer less from the rachitic changes, and do not have the stigmata. Their I. Q. is a little higher but they do develop central nervous system syphilis, at a later age. The embryonic type show strange

*Personal conversation with Dr. Harry Berger.

manifestations of the skin and mucous membranes, peculiar to them such as snuffles, eczematoid excoriating syphilis of the skin especially about the mucous orifices. This type of cutaneous syphilis about the month so closely resembles an eczema that it is often mistaken for it, while the same type that occurs about the anus and genitals resembles diaper scald. The desquamating palms and soles with their deep red tinged, glistening aspect occur almost exclusively in these children. On the other hand the second group of children will often have the same type of secondary symptoms that the adult acquired syphilitic presents, such as the papular eruption, split papules at the corner of the mouth, mucous patches and condyloma about the mucous orifices. These statements are not absolute but only relative.

The children of the second class are more likely to live a longer life and since many of them never develop stigmata, it may never be discovered that they were born with congenital syphilis. They may become important members of society and make a place for themselves among the upper half. I believe that a considerable number of those who develop dementia paralytica or locomotor ataxia in young adult or early middle age, belong to this group. It may be that they are not lying when they deny venereal disease of any type. I have seen destruction, bone lesions, notably the loss of the nose occur in youngish individuals who gave a negative history that I am satisfied belonged to the congenital syphilitic class.

Contrary to general opinion the congenital syphilitic family may be large. We have in our clinic 26 families with 127 children. Over ten per cent of our congenital syphilitic children belong to large families. This finding adds a strange factor to our problem. We recognize the fact that syphilis in children takes away about ten per cent of their mental efficiency. But let me state that there are some of these afflicted ones who are normal or above normal mentally. The factor of inherited traits now makes its entrance.

The parents of these children are as a whole somewhat mentally subnormal. Observation of their reactions while working with their children leads us to this view. I cannot conceive how it is possible for parents to rear a large syphilitic family in which some or all of the children had abnormal manifestations without making an effort to find out what it was all about; it must be ignorance. In one family of five children the mother stated they all had peculiar eruptions within three months after birth yet it was the youngest child that she brought to the hospital because of a severe cold and the examiner found the secondary eruptions while making a complete physical examination. I believe that to the already subnormality in the child caused by congenital syphilis is added the inherited strain of subnormality visited upon the child by his parents. Such a child has a small chance to gain an enviable position in the economic or intellectual state of society.

The majority of parents who have but one child and that syphilitic, consciously limit their parenthood to that one child because they have intelligence enough to know that what they are doing is a crime. Conversely many of the parents with large families proceed to have more children with the full knowledge that they will bear the marks of this disease all the rest of its life, a sure sign of mental subnormality.

The greatest problem in the care and treatment of the congenital syphilitic is the diagnosis and treatment of syphilis of the central nervous system. It is different from the type that is present in the adult. The Spirochetae pallidae has interfered with the embryonic cell from the beginning and thus made it take a diverse path and it has certainly interfered with the growing cell. Thus, it not only interferes with the cell growth but destroys that small cell while growing. The resultant cerebrospinal syphilis is not a pure type but grades from one into the other so unperceptibly that it is often almost impossible to tell where one begins and the other leaves off.

About three per cent of all cerebro spinal syphilis falls into the group of juvenile dementia paralytica. This is

rarely a pure type of disease but is nearly always crossed with tabes dorsalis. The origin of the juvenile paretic is a paradox. One would naturally suppose that a neurotrophic strain of Spirochete pallida was responsible for this form of disease. Such is not the case. An investigation carried out by the author in which he made an intense study of the children of paretic fathers failed to reveal a single case of dementia paralytica in any of their offspring. Not only did the children escape this type of disease but many of them apparently escaped the syphilis of the somatic system. Instances have been reported where the wife was so afflicted but this observation was not made in any of our cases. Enough work was done to show that the transmission of the paretic form of this disease from one afflicted with dementia paralytica is rare. The parents of the children suffering from dementia paralytica either did not have syphilis of the central nervous system or they had the meningo vascular type.

The oldest child in our series developed this parenchymatous disease, the rest of the children as a rule escape although they will have the somatic type, but it becomes less noticeable in the younger children and may even be absent in the youngest. The fury of the disease seems to be visited upon the first born. In Paul O'Leary's experience the youngest child has been the paretic while the older ones escaped.

Quite often the oldest child will have optic atrophy while the rest of the children may escape the disease altogether. The treatment is almost hopeless. In only 20 per cent were we able to secure favorable results even with the aid of malarial therapy. The remainder either died or were sent to an institution for the feeble-minded.

We cannot agree to the dictum that there is a neurotrophic strain of Spirochetae pallidae transmitted to the offspring which is responsible for their paretic state.

The juvenile tabetic quite often springs from a tabetic family. If the father is young when he develops this type of disease, the wife and some or all of the children may be simultaneously affected. If these children are secured in the pretabetic state there is some hope of their ultimate recovery providing malarial therapy is included in their course of treatment. I have in mind two families in which the father developed tabes before 30 years of age. In the one family the father, mother and five children all developed this type of the disease. In the other the father of seven children developed this disease soon after the birth of the oldest girl, the mother and none of the children ever presented any signs of it. The oldest girl is now 35 years of age.

If the offspring develop tabes dorsalis after the age of 20 years, the disease can often be controlled by ordinary treatment. There seems to be a neurotrophic trait in the spirochetae pallidae that is transferred to the offspring by the father through the mother.

The meningovascular type of syphilis of the central nervous system follows no known rule. The father and mother may or may not have this type of disease. Some of the children of the same family may present symptoms and some may not. In one family of five children one child was so afflicted, the others were free. It must be understood of course that the diagnosis was not only based upon physical inspection but upon the examination of the blood and cerebrospinal fluid.

The meningovascular type of syphilis responds to treatment most readily and the immediate prognosis is good. In more than 60 per cent of our series the blood and cerebrospinal fluid became negative and the clinical symptoms disappeared under continued treatment. It is our impression that these children do much better when malarial therapy is given. This statement holds true in all types of syphilis in children whether it be of the central nervous system or the somatic involvement. Children whose disease has progressed to the point of destruction or cicitrization are hopeless from any standpoint of treatment.

Bone and Joint Syphilis: Since the modern methods of treatment have been instituted the number of children with bone and joint involvement has been

gradually diminished. Ten years ago in our clinic, the showing was about ten per cent; at the present time it is less than half of that number. The discovery of syphilis in the father and more efficient treatment of his disease before marriage has produced an intimidated spirochetae which is either not transferred to the mother or is transferred in a less virile form. I believe that the per cent of congenital syphilis of all types is on the decline because of this state of affairs.

Syphilis of the cardiovascular system (aortic regurgitation, aortitis and aneurism) is practically unknown. I have recognized but two well developed cases in the last ten years. Others have reported a far greater number but our experience has been to the contrary.

The routine examination of the eye background of the congenital syphilitic has opened a vast field of possibilities. We have found a large per cent of these children show some findings in this organ. The larger percentage falls into the group of retinitis, choroiditis or a mixture of the two. The lesser percentage have to do with the optic nerve. It would be absurd to claim that all of these changes were due to syphilis or that these signs found in the absence of other manifestations or the presence of negative serology were due to the same cause but the observation must be regarded with some gravity. Many of these eye conditions clear upon the institution of antisyphilitic treatment in spite of negative findings of all kinds.

Syphilis of the viscera is an almost universal finding in the new born congenital syphilitic with florid manifestations. I believe the enlargement of the spleen and liver at this early age is not due to disease present in those organs but can be explained upon the basis of response of the reticulo endothelial system. The macrophages, plasmacytes and lymphocytes invade and enlarge these parts because of their migration there to combat the organism of syphilis. Enlarged liver and spleen does not contraindicate treatment with the arsphenamines. They decrease in size to the original with a small amount of treatment. Enlargement of these organs in the older child is nearly always an indication of syphilitic disease. The percentage of such involvement is very much smaller than it is in the infant. The arsphenamine or malarial therapy are distinctly contraindicated.

The diagnosis and treatment of prenatal syphilis: That syphilis is transmitted to the fetus by the mother is generally accepted; upon this fact modern treatment has been built. The detection of syphilis in the young mother during her first pregnancy is impossible from the standpoint of physical examination alone. The Wassermann reaction is the main stay of the obstetrician; without it he would be lost since he would be unable to make a diagnosis in more than 10 per cent of the cases.

From figures that we have been able to gather from various sources we arrive at the conclusion that the number of infected mothers is about ten per cent. Thirty per cent of pregnancies in women are premature because of these conditions. Therefore treatment should be instituted as soon as the pregnancy is discovered. In order to secure the best results this treatment should be commenced before the third month; the reason is obvious. Syphilis of the fetus is essentially an involvement of the blood vessels and the bone forming organs. The basis of the skeletal system is almost completely formed at the fourth month. These stigmata so well recognized are due to interference with bone growth. If treatment is not instituted before the formation of the skeletal system, many deformities will develop in the child in spite of energetic treatment of the mother after the fourth month of pregnancy. Treatment should consist of the administration of the arsphenamines, bismuth and mercury. McCord has found that at least nine doses of arsphenamine are required to insure a living, healthy child. It is my opinion that one must administer at least 16 doses of neo salvarsan and 20 doses of bismuth to insure a satisfactory result. The mother should be treated during each pregnancy no matter what her serological findings may be. Very few accidents occur in the treatment of these mothers. The per-

centage is not so high as it is in the non-pregnant women.

The statement has been made that a minimum amount of treatment given to the mother will insure a living child. This assertion is only too true, but what a living child. This is an interesting observation but a dangerous procedure.

We receive many infants into our clinic whose mothers have had such treatment. Many of them have negative Wassermann reactions which they may retain for years. A great number have an enlarged spleen and liver while others have positive serological findings in their cerebrospinal fluid. The treatment has only been sufficient to mask their symptoms or to produce negative serology without eradicating the disease. Everyone of these infants should have an examination of their cerebrospinal fluid and subsequent treatment should be energetic and thorough.

The time will come when practically every congenital syphilitic will have a course of malarial following their preliminary treatment with the arsphenamine, bismuth and mercury. Children who have received this treatment do much better than those who are treated in the ordinary way. The advantages are:

1. A remarkable growth in weight and stature.

2. Increased resistance against the disease of syphilis.

3. The efficiency of subsequent treatment is greatly enhanced.

4. Syphilis of the central nervous system may be greatly reduced.

5. Its use in the treatment of interstitial keratitis results in a much better eye.

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Because an x-ray apparatus is a mechanical contrivance, many persons believe that it is necessary for the operator merely to press a button and presto! out comes an x-ray film on which is printed the diagnosis of the existent disease. Such an erroneous conception of the use of the x-rays explains why so many persons fail to understand that an examination of this character must be conducted by a radiologist—a physician whose specialty is restricted to the use of the x-rays and radium in the diagnosis and treatment of disease, Dr. L. J. Menville explains to readers of "Hygeia," The Health Magazine.

A CASE OF INFARCTION OF THE LIVER FOLLOWING CHOLECYSTECTOMY

R. W. Kerr, M.D.*

Following is a report of an autopsy recital of the case is considered interesting because it so well illustrates one of the dangers of gall bladder surgery. from a neighboring hospital. A complete

The patient was a white female, 57 years of age. She was practically well until two weeks before admission to the hospital, at which time she began having attacks of severe pain in the right upper quadrant which required morphine for relief. These attacks came on every few days and after the first she was slightly jaundiced.

On admission to the hospital, examination revealed a well nourished patient showing some jaundice. The heart was enlarged to the anterior axillary line, and there was a systolic murmur heard best at the apex. The blood pressure was 186/100. The lungs were negative. The abdomen was quite tender in the right upper quadrant and there was some rigidity in this region.

Laboratory report showed hemoglobin 84 per cent, white blood cells 8,700, polymorphonuclears 64 per cent. The urine showed a 3 plus albumin and a positive test for bile.

Two days after admission to the hospital, a cholecystectomy was done. Considerable difficulty was encountered in freeing the adhesions about the neck of the gall bladder, and in exposing the ducts. Hemorrhage was encountered which was difficult to control, and what was thought to be an anomalous branch of the portal vein was tied off.

The patient did very well for the first 24 hours at which time her pulse was 110 and temperature 101. No untoward symptoms were noted; however, a blood count taken about this time showed white blood cells 27,600 and polymorphonuclears 86 per cent. Three hours later she showed a marked change with a pulse of 165, temperature 107.4 and respiration of 15. The blood pressure was 84/60, the patient was evidently in extremis and

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died about an hour and a half later.

The anatomical diagnosis at autopsy was as follows: Massive infarction of the right lobe of the liver following ligation of the portal vein and right hepatic artery with thrombosis of the portal vein; impacted biliary calculi near the ampulla in the common duct; surgical absence of the gallbladder and section of the common duct; surgical incision of the upper right quadrant; jaundice; fatty degeneration of the liver; generalized arteriosclerosis; hypertrophy and dilatation of the heart; acute and chronic myocarditis; fragmentation and segmentation of the myocardium; chronic nephritis; Chiari network of the right auricle; Ghon's tubercles of the lungs; chronic splenitis; retention cysts of the kidneys; Meckel's diverticulum; acute adrenalitis; thrombosis of the adrenal vein.

On opening the pleural cavity the heart was hypertrophied, weighing 425 grams, flabby in consistency and the valve rings were dilated. There was some calcification in the aortic valve cusps and the coronaries show some sclerotic changes. There was a thin fibrous Chiari band across the right auricle.

The peritoneal cavity shows a few fresh adhesions about the operative wound and the liver was about 2 cm. below the costal margin in the right midclavicular line and presented a striking picture, weighing 2330 grams and measuring 29×25×9 cm. The right lobe of the liver showed a mottled appearance with deep reddish-purple areas measuring as much as 4 cm. in diameter. These areas were fairly firm in consistency and sharply outlined from the neighboring liver tissue, which was grayish-brown in color and normal in appearance except for a distinct greasy feel and look. The left lobe showed no discoloration and the line of demarcation between the right and left lobe was quite distinct.

On section of the liver the line of demarcation was even more distinct. Most of the right side was firm and reddish-purple in color. Here the liver architecture was obscure and there were many small spaces such as are seen on the cut surface of an emphysematous lung. At the junction of the right and left lobes there was a definite irregular line about 1 cm. in width which was congested and reddish in color in contrast to the normal liver tissue to the left.

On examination of the blood supply to the liver there was found a ligature about the portal vein at the hilus of the liver just before it divides. This ligature also included the right branch of the hepatic artery just after the bifurcation so that the left branch was not occluded. Extending into the liver from this point of occlusion of the portal vein there was an ante-mortem thrombus about 3 cm. in length. Thrombi were also noted in some of the smaller portal vessels in the liver substance. The hepatic veins showed no involvement. There were two small impacted gall stones in the lower end of common duct.

The spleen weighed 165 grams, was soft in consistency and on cut section the pulp appeared congested.

The gastro-intestinal tract was essentially negative except that 11½ cm. above the ileocecal valve there was a diverticulum measuring 8 cm. in length and 4 cm. in circumference.

Histologically, the heart muscle showed fragmentation and segmentation with granular degeneration and many of the vessels in the stroma contained polynuclear leukocytes.

Different blocks taken from the liver showed extensive areas of incomplete necrosis. This necrotic tissue still retained the general architecture and showed very extensive fatty change effecting particularly the central and mid-zones. The cells beneath the capsule did not seem to be as much effected, though these and the section from the left lobe of the liver showed extensive fatty change about the central zone.

The spleen showed an increase in fibrous tissue with the sinusoids standing out more distinct than usual. In the pulp there was an increase in the number of polys, many of these being in the sinusoids. Extensive areas of congestion and a suggestion of hemorrhage were noted in some places.

The adrenal gland showed considerable disintegration of the cortex with many foci of polynuclear leukocytes as

well as mononuclear cells. Thrombi were seen in some of the adrenal veins.

The surgically removed gallbladder showed the wall to be thickened and many larger and smaller stones present in the lumen. Near the neck of the gallbladder a few small ulcerations could be seen in the mucosa.

Two rather striking lesions were present, the relation of which to death was not entirely clear. One of these was the presence of an acute and chronic myocarditis with considerable disintegration and degeneration of the muscle fibers, indicating that death might have been of a cardiac character.

The other lesion which was equally striking was the presence of a massive infarction of the right lobe of the liver following ligation of the portal vein and the right branch of the hepatic artery. This factor could have produced such hepatic insufficiency, resulting in possible toxemia, which may have reacted upon the myocardium and brought about a myocardial insufficiency and in that way produced death.

It was interesting to note that the adrenal gland was the seat of an acute inflammatory reaction associated with thrombosis of the adrenal vein, the significance of this was not clear. The unusually high terminal temperature suggested a severe toxemia such as might arise from sudden development of hepatic insufficiency.

Infarcts of the liver in the strict sense are infrequent. Zimmerman in 1930 reviewed the literature and recorded only 27 cases and then reported one of his own in a child 31 hours of age. Of these cases reported three are questionable as the patient recovered and the liver was not examined microscopically.

Of the cases reported none were of an occlusion of the portal and arterial blood supply both, but only of the arterial.

It has been shown repeatedly that, in animals, the obstruction of the portal circulation will not produce infarction of the liver but rather, a decrease in size associated with some bluish discoloration and some congestion of the central areas. Cases are reported in which the portal vein has been obstructed for as long as twenty years without marked changes in the liver, and with the development of collateral circulation.

The appearance of the liver following sudden occlusion of the portal vein is somewhat like that seen in hemorrhagic infarcts of the lung and Zahn called them "Atrophic red infarcts of the liver." This is, however, a misnomer for the findings are more that of a congestion than a true infarction.

Several writers have found that ligation of the hepatic artery is not always followed by infarction of the liver. Dayon and Dufert explained this lack of change in the liver on the grounds that the liver received an adequate blood supply from the other branches of the celiac axis. Von Haberer found that in all the dogs that did not develop infarction after ligation of the hepatic artery there were separate branches off the main trunk to each of the different lobes and that some of these were behind the ligature. Segall attributed this finding to anastomosis with the branches of the phrenic vessels at the diaphragm and with vessels from other of the surrounding viscera. From this Segall concluded that infarcts of the liver follow obliteration of those arteries which terminate in the liver without having any anastomosing branches and are therefore true endarteries.

A few cases are reported where the hepatic artery was ligated in the course of an operation and the patient recovered: One of these, by Smith, in which the hepatic artery was ligated because of injury to the vessel in the course of a gallbladder operation; another, by Kehr, in which the hepatic artery was ligated because of an aneurysm of the vessel which perforated into the gallbladder.

This case is interesting in that in this liver one-half shows infarction while the other does not and to both sides the portal circulation is occluded. The only portion showing the infarction is in that to which the hepatic artery is also ligated. That there is some anastomosis is borne out by the fact that beneath the capsule in some areas the necrosis is not so complete.

From the surgical point of view this case is interesting in that it demonstrates

one of the dangers connected with gall-bladder work. Here the work frequently is done with poor or difficult exposure and the chance of some type of anomaly of the ducts or vessels is always present.

In the literature cases are reported of the ligation of the hepatic artery, some with a fatal termination. However, they frequently recover though sometimes following a prolonged convalescence. From experimental evidence and also from cases reported, the ligation of the portal vein alone is not a fatal procedure, by any means, though sudden occlusion may cause some difficulty until collateral circulation has developed.

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COLLOID CARCINOMA OF THE BREAST—CASE REPORT

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M. A. Walker, M.D.*

A married woman, aged 42, for many years had frequently noticed diffuse swelling and lumps in both breasts, either before or after menstruating. She had never been pregnant. Her general health was excellent and she had gained forty pounds during the past year. A nodule in the left axilla, first noticed two months before our examination when it was the size of a pea, had enlarged to the size of a lemon; she ascribed this axillary enlargement to a recent furuncle of the face. For two weeks, however, there had been constant pain in the left axilla and upper arm, with increasing numbness and tingling of the skin of the left anterior and medial brachial regions. The pain was sufficient to keep her awake at night. Only three days before our examination, she had first felt a hard mass in the upper outer quadrant of the left breast.

Both breasts contained numerous firm discrete nodules typical of chronic cystic mastitis. Deep in the upper outer quadrant of the left breast was a freely movable mass, about 3 by 2 cm. not attached to the skin or underlying tissues and not even perceptible when palpated by the flat palm of the hand. The skin did not dimple over this mass. The nipple was not retracted, nor could any discharge be expressed. In the anterior portion of the left axilla, just posterior to the anterior axillary fold, was another firm mass, about 4 by 4 cm. somewhat fixed toward the apex of the axilla. The physical examination was otherwise entirely negative. Results from examination of the urine and blood were normal.

After infiltration of solution of procain, the mass in the axilla was excised and found to consist of two encapsulated nodules, each 4 by 3 by 2.5 cm. These nodules contained a hemorrhagic mucoid material, with some spots of firmer tissue. The diagnosis, made from study of fresh frozen sections stained with polychrome methylene blue, and from fixed sections cut in paraffin and stained with hematoxylin and eosin, was metastatic mucoid or colloid adenocarcinoma (Fig. 1.)

FIG. 1.
Metastatic mucoid or colloid adenocarcinoma, in an axillary lymph node.

Four days later, using ether anesthesia, a radical amputation of the left breast was done, with removal of both pectoral muscles and excision of the contents of the axilla. None of the axillary lymph nodes removed at this second operation contained carcinomatous tissue.

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The mass in the upper outer quadrant of the breast was an atypical adenocarcinoma, chiefly made up of solid nests and

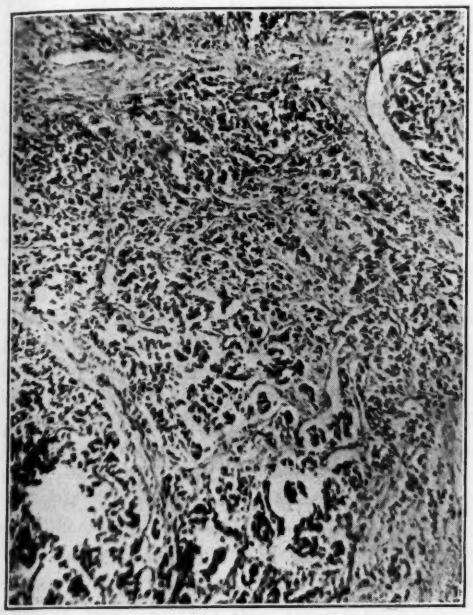

FIG. 2.
Atypical cellular adenocarcinoma of the breast.

clusters of malignant cells, but with sufficient fibrous tissue in other regions to suggest a scirrhous type of lesion (Fig. 2). Tendency to colloid deposit could not be found.

After convalescence, a course of therapy with roentgen rays was given, to be repeated after three months elapse.

COMMENT

Pain is unusual as an early symptom of carcinoma of the breast. Pressure upon sensory nerves by rapidly enlarging lymph nodes, distended chiefly by colloid material rather than by an overwhelming growth of new cells, gave this patient her first warning of the seriousness of her condition and caused her to consult a surgeon. It is our hope that this evidence of cell differentiation, so different in pathological character from the less differentiated primary tumor, increases her prospect of permanent cure.

TUBERCULOSIS OF THE SPLEEN SIMULATING BANTI'S DISEASE

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THOMAS G. ORR, M.D.*

A review of the literature reveals comparatively few instances in which the clinical simularity between tuberculosis of the spleen and Banti's disease is discussed.

Price and Jardine[1] reported three cases of primary tuberculosis of the spleen, resembling Banti's disease. The first case was a male, 41 years of age, complaining of generalized weakness and pain in upper left quadrant. The spleen and liver were found to be enlarged. The hemoglobin was 42 per cent and red blood cells 2,250,000. The temperature varied from 100.4 degrees to 101.6 degrees. A clinical diagnosis of Banti's disease was decided upon and splenectomy done. Patient died the day following operation. Microscopical sections of the spleen revealed a thickened capsule and throughout the pulp were myriads of miliary tubercles and various stages of tuberculosis. The second case was a white female, 41 years of age, who came to the hospital complaining of weakness and a mass in the upper abdomen. On physical examination patient had a large palpable, slightly tender mass in the upper left quadrant. Her hemoglobin was 60 per cent and her white blood count was 3,360,000. She had a daily afternoon temperature elevation of 100°. The preoperative diagnosis was Banti's disease. Splenectomy was done and at that time the liver and spleen both were found to be markedly enlarged. Patient had no fluid in her abdomen. She died on the third postoperative day. Microscopical sections of the spleen showed disseminating miliary tubercles scattered throughout the splenic pulp. There were also large areas of caseation surrounded by an avascular epitheloid zone. The third case was a white female, age 33, who entered the hospital, complaining of weakness, tumor in the abdomen and a loss of nine pounds of weight. On physical examination there was a large, freely movable mass in the upper left quadrant of the abdomen. The liver was not en-

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larged but there was moderate ascites. She had a 70 per cent hemoglobin and a red blood cell count of 4,420,000. The patient had a daily afternoon elevation of temperature from 100 degrees to 102 degrees. A clinical diagnosis of Banti's disease was made and the spleen was removed. The spleen was found to be markedly enlarged. There was also slight enlargement of the liver. Recovery was uneventful and she was dismissed from the hospital much improved. The spleen weighed 2,200 grams. Microscopic examination revealed a diffuse distribution of confluent tubercles.

Bunch[2] in 1931 reported a case of primary tuberculosis of the spleen in a woman 38 years old, complaining of weakness, vomiting of blood and passage of black, tarry stools. On admission to the hospital the temperature was 100 degrees. A clinical diagnosis was not made. On physical examination, she had a tender mass filling the upper left abdomen and extending one-half inch below the umbilicus. An exploratory laparotomy revealed the veins of the stomach from the pylorus to the cardia to be greatly dilated. The spleen was found to be markedly enlarged and was removed with difficulty, as it was bound to surrounding organs with dense adhesions. The liver in his case showed no abnormality. The blood picture was typical of secondary anemia. The spleen weighed 335 grams and the microscopic report revealed severe chronic perisplenic inflammation and typical calcified tubercles. In addition, a definite microscopic picture of Banti's disease was present. The patient was free from symptoms seven years after operation. This may have been a case of Banti's disease with a superimposed tuberculosis.

We have just recently treated a patient who had symptoms and findings characteristic of Banti's disease which proved at operation to be primary tuberculosis of the spleen.

Mrs. E., white female, housewife, aged 36, entered the University of Kansas Hospital on September 19, 1932, on the gynecological service, complaining of excessive menstrual flow, constant discomfort in her upper abdomen, weakness, dizziness and a sensation of fullness in her pelvis. Her trouble started in 1917 while working in a rubber factory in Manchester, England, during the World War. The work consisted in vulcanizing rubber and in doing this type of work petrol is used. Her first symptoms were nausea and vomiting which gradually became so severe that she was compelled to discontinue her work. She grew pale and weak and lost considerable weight. Her family physician told her that she had a severe anemia. About four weeks after she quit work, she developed a "bearing down" sensation in her back and pelvis which was especially severe during menstruation. The anemia, weakness and pelvic pains have continued to the present time with varying degrees of intensity. Following childbirth in 1921, she developed bronchopneumonia which increased her anemia and pelvic pains. She gradually improved up to 1928 when her symptoms again became severe. Since 1928, she has had to confine herself to bed a day previous to the onset of menstruation and for one day following. Fifteen months ago she began having discomfort in the upper abdomen which was especially marked during menstruation. She received relief by lying on her abdomen.

PHYSICAL EXAMINATION

The patient was a well developed but poorly nourished white woman. Lips and mucous membranes showed a marked palor. No glandular adenopathy or scars detected. Chest expansion was normal and no evidence of a lung lesion found. A systolic murmur was heard at the apex and base of heart. The pulse range was 70 to 98 and the temperature varied from subnormal to 100 degrees. The blood pressure was normal. A mass was found in the upper left abdomen, extending downward 2½ centimeters below the umbilicus and inward to 3 centimeters past the midline. The mass moved with respiration. The liver was palpable 3 centimeters below the costal margin. There was no tenderness. Pelvic examination revealed a small mass to the left of the uterus which was slightly tender.

LABORATORY DATA

Blood count on admission showed a red

cell count of 2,660,000, a hemoglobin of 25 per cent and a white cell count of 2,350. The blood chemistry, icteric index, Van den Bergh's and cholesterol tests were all normal. The Wassermann and Kahn tests were negative.

x-Ray report is as follows: "Radiographic examination of the chest, with the patient supine, shows an obliteration of the right costophrenic angle by old adhesions and a thickening of the pleura along the right chest wall, extending as high as the second interspace. No tuberculosis infiltration is noted."

A clinical diagnosis of Banti's disease was made. Several transfusions were given and 16 days after admission the spleen was removed. It was free of adhesions except along its posterior border. The liver showed slight scarring on the upper surface of the right lobe. Many adhesions were found in the pelvis, involving the tubes, ovaries and uterus in one mass. After a stormy postoperative course, lasting three weeks, she recovered sufficiently to return to her home.

PATHOLOGICAL REPORT

Gross Pathology—"Specimen consists of a spleen weighing 620 grams and measuring 19×9×7 centimeters. The organ is of the usual shape, dark red-gray in color and soft in consistency. The capsule is smooth and is somewhat thickened and opaque. Histological Pathology—The capsule is thickened. The trabeculae are also more prominent than is usual. There is considerable diffuse fibrosis throughout the splenic pulp. The sinusoids stand out quite distinctly. In addition there are a number of rather large, granulomatous areas characterized by a central mass of caseation surrounded by typical tuberculous granulation tissue. Multinucleated giant cells are numerous. Some of the Malpighian bodies are rather large and show a tendency to hyaline change in the reticulum. The splenic pulp is in places quite cellular. A number of rather large, irregular, deep staining mononuclear leukocytes are seen scattered here and there. Diagnosis—Tuberculous splenitis (chronic)."

Since leaving the hospital several blood counts have been made, indicating that the improvement in the blood condition, while in the hospital, has been maintained. She still complains of "bearing down" sensation in the pelvis and pain in the lower abdomen. Menstrual bleeding has much improved.

DISCUSSION AND SUMMARY

Tuberculosis of the spleen in some instances resembles Banti's disease. The blood findings are not diagnostic. This has been very well illustrated by Winternitz[3] who studied 51 cases of primary tuberculosis of the spleen. He has defined primary tuberculosis of the spleen as a tuberculous infection localized in the spleen after the original focus in some other part of the body has healed. In this series a normal blood count was recorded in 34 per cent, an anemia in 42 per cent and a polycythemia in 23 per cent. The cases here reported all showed a definite anemia.

Splenomegaly is characteristic of both Banti's disease and tuberculosis of the spleen and, therefore, not a distinguishing feature. The combination of a large liver and splenomegaly is more common in Banti's disease. Three of the cases above recorded had enlarged livers.

Ascites is found in the late stages of Banti's disease. It is noted as present in two of the five cases here described.

Fever is a differentiating factor between Banti's disease and tuberculous splenomegaly and is emphasized as an important point in the diagnosis. Fever is seldom noted in Banti's disease except in the terminal stages. All cases here reported showed slight fever.

Gastric and mucous membrane hemorrhages are commonly found in Banti's disease. Four of our five cases had no such symptoms. Bunch's patient probably had both Banti's disease and tuberculosis of the spleen which would account for the bleeding described.

A family history and evidence of tuberculosis elsewhere in the body are of diagnostic importance. The tuberculin test is of doubtful value.

The recognized treatment of both Banti's disease and primary splenic tuberculosis is early splenectomy.

The percentage of recoveries following splenectomy for primary tuberculosis of the spleen has been noted by Magnac.[4]

In a series of 18 cases treated by splenectomy, he records 67 per cent recoveries. Three of the five cases included in this report recovered from the operation. Our patient is living with much improved health six months after splenectomy.

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SPEECH DEFECTS

E. T. Gibson, M.D.*

People formerly thought of speech defects as inborn, and accepted them as handicaps which had to be put up with. In the last century various surgical operations about the mouth and throat were used, but most of them failed to do any good. In recent years the problem has come to be understood better, and sufferers from defective speech are applying for treatment in greater numbers, in confidence that something can be done to help them. The confidence is not entirely baseless, for results are better now than at any previous time.

Treatment is largely in the hands of two groups: first, a highly trained body of experts in speech correction, and second, physicians who are interested especially in mental hygiene and psychiatry. The psychiatrists are involved because many speech defects are of mental or emotional origin. To treat the original factors alone is not sufficient, because the defect is perpetuated by habit, and usually the cure must be completed by the specialist in speech correction, who understands sound-production and is skilled in methods of teaching. It is not necessary to use both physicians and speech-correctionist in every case, because the latter should be trained also in the basic facts of mental hygiene.

Speech defects are of such great concern in the schools, that in many cities departments of speech-correction have been established. Kansas City has one of the best.

Serious speech defects are found in about one per cent of the entire population. In school, children so afflicted tend to grade below their real ability because they are unable to express themselves fully, or shrink from displaying their infirmity by reciting. In later life speech defects are always an obstacle to free social intercouse and to advancement in almost any career. Even more unfortunate is the effect upon one's personality. Self consciousness about speech leads to self-consciousness about everything, and tends to isolation and even to various nervous and mental disabilities.

Speech is not a birthright. It has to be learned, and one has to use organs in speaking which are primarily designed for other purposes. Even the vocal cords are most important in preserving life by protecting the wind-pipe from foreign bodies. It is quite a secondary matter that we are able to produce noises by allowing the free edges of the cords to vibrate. Speech is thus an accomplishment and liable to more defects than a function like walking which is laid down from the beginning in the nervous system. A second general fact is that sounds are uttered first in infancy as a protest against discomfort, as a demand for something which will give pleasure, or as an expression of contentment. In this way speech develops first as an expression of emotion, and remains throughout life closely bound up with emotional states. A third factor which is involved in every case of speech defect is habit. It is a primary property of the nervous system that an event occurs a second time more easily than at first, and with repetition the event becomes automatic and difficult to vary. This is why treatment should begin in childhood, before faulty habits of speech are confirmed.

One of the many classifications of speech defects is into three types: (1) Delay in beginning to speak; (2) Defects in sounds, and (3) Stuttering.

DELAYED SPEECH

A child should be speaking freely by two and one-half, or at the latest three years. If he does not, he may be mentally backward, and this should be investigated. A rarer cause is a vaguely understood lack of facility in language

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without other mental defect. Some people have a natural readiness in language, and easily learn several foreign tongues in addition to their own. Other perfectly normal people lack this facility and may have difficulty in learning their own language properly. In extreme cases this may lead to delayed and awkward speech. I know an intelligent young man without other defects, who can express only simple ideas in words, but can convey a complex idea clearly and quickly by diagrams and sketches.

The most important variety of delayed speech, because the easiest treated is the type due to over-indulgence. If a child is denied nothing, if every want is filled and every discomfort prevented, there is no particular reason why he should learn to speak. Or if crying is sufficient to bring results at once, there is no reason why a child should learn to specify his wants in words.

DEFECTS IN SOUNDS

Defects in sounds may affect only one or two sounds or may be so severe that the language is unintelligible. There are many causes for such defects. There may be imperfections in the teeth, or in the nerves or muscles of the tongue, lips and throat. Cleft palate produces a special variety of defect, and is almost the only one of the serious structural defects which can be treated surgically. Operation may remove the cleft in the palate, but does not cure the speech defect, because this has become habitual and must be removed by special training. This necessity should never arise, because every cleft palate should be treated in the first month of life. Tongue-tie is almost a myth, and the freeing of the tongue which many parents insist upon is almost always unnecessary. At the National Hospital for Speech Disorders in New York there have been only two instances of tongue-tie in the thousands treated there. Do not expect to cure serious speech defects by having tonsils or adenoids removed, although such operations may improve the tone of the voice.

Other causes for defect in sound are impaired hearing; naturally poor discrimination of sounds though hearing may be good; use of foreign language at home; imitation; poor training, and many others.

Treatment of this variety of defect is by speech-training, preferably by a trained teacher, but when such care is not procurable any intelligent mother can accomplish a good deal by a little study of how sounds are produced. She may find out how the faulty sounds should be produced by watching her own mouth and tongue in a mirror. As a rule mothers are not as good teachers of their own children as are strangers. In most cases it is best to consult a physician first so that physical and emotional factors may be found and eliminated.

STUTTERING

In stuttering, utterance may be entirely blocked or initial or other syllables may be repeated with great tension. The stutterer may be thrown into extraordinary contortions in getting the sound out, but when once spoken the sound is usually correct.

Stuttering is rather a nervous disorder than a primary speech defect. Almost everybody is likely to stutter when under emotional tension, but most of us do not acquire the habit of doing so. After the habit is well established it is very obstinate and adults usually require the aid of both physician and speech trainer. It is usually curable. Albert Bigelow Paine, the writer, was relieved of stuttering in late middle life and became a pleasing speaker after nearly a life time of silence when in public.

The time to treat stuttering is when it first appears, in childhood, and one important part of the treatment is to ignore the stuttering entirely. As soon as the stutterers' attention is drawn to it by correction, scolding or ridicule, he becomes self-conscious and the habit is very quickly fixed. It is like making an effort to go to sleep; the more effort the less sleep.

The important thing is to try to find out why the child is under emotional tension, and to remove the cause. Some of the situations one finds seem to be too simple and childish to have such effects, until one reflects that in children they could hardly be anything else.

THE EARLY AND LATE TREATMENT OF BURNS

EARL C. PADGETT, M.D.*

Several recent contributions to our knowledge of handling burns and scalds has increased the efficiency of the early treatment; decreased the mortality; shortened the period of convalescense and given expectation of the prevention of ultimate contractural deformity. My excuse for outlining a rational program of the handling of the burned individual is that on the whole he does not receive the care from inception to final repair that is most likely to give the minimum of pain, the least mortality, the least permanent disability and deformity, and the minimum time in gaining a cosmetic and functional repair.

Without in any way minimizing the importance of the care of the local lesion of the acute burn, it can be said with some truth that in the recent past possibly too much attention has been focused upon the local lesion in contra-distinction to the alleviation of the early profound systemic disturbances. Until very recently the profession has looked very favorably upon the conception that disintegrated protein products were liberated at the site of the local lesion, and were then absorbed into the general circulation to cause the profound symptoms of vasomotor disturbance which is a part of the clinical picture.

The treatment of the systemic disturbances in the acutely burned, starts with the adequate alleviation of the most outstanding symptom—pain; but no discussion here is necessary as it is universally agreed that morphine and codein in amounts to give relief are indicated. To gain a more rational conception of the other systemic measures calculated to decrease mortality, it is necessary to discuss briefly the disturbed physiology encountered.

The immediate shock which we see clinically in the acutely burned is not caused in animal experiments as the animals are anesthetized. One must deduce that the primary shock is due to pain and fear induced by the injury and is caused by a reflex temporary dilatation of the vascular bed and is not due to an actual reduction in the volume of blood—only to a relative reduction, so to speak. However, within an hour or so as Underhill et al. have shown, symptoms which may be ascribed to a true secondary shock supervene and are due to an actual reduction of the quantity of blood in the circulatory tree too great to be compensated for by a compensatory vascular constriction. The vascular permeability is increased in the outgoing direction. Fluid is lost into the intercellular spaces in the vicinity of the burn in abnormally large amounts and there is no tendency to reabsorption into the blood stream until after the first 24 to 48 hours, after which there is a tendency for reabsorption. Chemical analysis of this fluid shows it is practically identical with that of the blood serum.

These investigators have also shown that in experimental animals with a burn involving one-sixth of the surface of the skin, there may be a fluid loss from the circulatory tree to the extent of 70 per cent of the total blood volume in a period of less than 24 hours. Thus, in a 150 pound man with a 5000 cc. blood volume, 3500 cc. of fluid could be lost within 24 hours. Underhill et al. conclude that man or animal do not long survive when the blood plasma is concentrated to 140 per cent of the normal value. The blood cells are concentrated as the blood plasma pours out so that an estimation of the hemoglobin content and red cell count of the blood if taken from the same place gives a good rough index of the extent of the blood concentration. Another finding was a decrease in the blood chlorides after about 36 per cent of the reserve body chlorides have been used.

The loss of blood plasma with its protein content from the circulatory tree, the relative increase of the blood cells combine to cause a slowing of the capillary blood flow and an insufficient oxygen supply to the outlying tissue intervenes due to the circulatory deficiency. In the face of a concentrated blood, the kidneys fail to separate a normal urine and there occurs an elevation of the non-protein nitrogen of the blood

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and an associated albuminuria of the urine.

Blalock working on the reason for the fall in blood volume and pressure in the shock syndrome, found by very carefully weighing dogs, split in half by a special technique which should be accurate, that the burned half of the animal increased in weight by 3.34 per cent of the body weight and that 48 per cent of the total blood plasma escaped from the blood stream on an average.

Underhill in studying the loss of fluids —a fluid similar to blood plasma in composition—from the lungs following lethal war gas poisoning found that a 25 per cent concentration of the blood plasma in the circulatory tree caused grave symptoms and 40 per cent usually caused death. Thus, the average of 48 per cent loss of blood plasma in Blalock's experiments would seem to be sufficient to cause death. In Blalock's experiments dogs were used. They do not blister when burned. In the human who blisters, the loss of blood plasma might very well be even greater. Also in Underhill's experiments, he found that the fluid loss tended to vary directly with the degree of the burn but finally a maximum response to fluid loss was reached. The conclusions arrived at experimentally coincided with what we know clinically, that the area burned is far more important than the degree of the burn.

Thus, the experiments of Underhill and Blalock would lead one to believe that it is not necessary to fall back on the absorption of an autolytic protein toxin to explain the clinical phenomena that follow a severe burn. The failure of phenylsulphophthalein injections and strychnine injections in lethal doses to show signs of absorption, would suggest that the tendency for absorption of any toxin into the circulation is during the first 48 hours, at least, practically nil.

If the preceding data is correct, it would seem logical during the first 24 to 36 hours—while the increased permeability of the capillaries in the vicinity of the burn persists—to give continuous fluids. The next pertinent questions are: What are the fluids to be and in what amounts are they to be given?

Because of the reduction of the serum protein content of the blood stream and because such a reduction in itself may play a major part in the death of the patient, even in the face of the known hemo concentration seen in burned cases, it would seem imperative to raise the serum protein by blood transfusion. When the burn is a severe one during the first 36 hours, a 25 per cent reduction in the serum protein in a 150 pound adult with 5000 cc. blood volume would call for about 1250 cc. of blood by two ordinary blood transfusions of about 600 cc. each. For a child a proportionate reduction according to weight would meet the indications.

As the primary shock is a relative loss of blood volume from general vascular dilatation, it is logical that the initial injection should be intravenous and fairly rapid. When the vascular bed has regained some of its tone, an excess of fluid is necessary to aid in replacing the fluid which will be lost through increased vascular permeability in the neighborhood of the burned area. In an adult the work of Smith and Mendel and Rountree on "water intoxication" would lead one to run the initial intake of isotonic salt solution to 4000 to 5000 cc. Rountree found 35 liters of saline necessary to produce water intoxication in man and Smith and Mendel gave rapid isotonic salt solution in quantities equal to the animal's blood volume. Within 5 minutes the fluid disappeared from the blood stream and later was eliminated through the kidneys. In a child the initial quantity of salt solution should be decreased in proportion to the body weight. After the initial intravenous intake of salt solution, the needle should be left in the vein and continuous salt solution kept up not faster than 25 cc. per minute in a sufficient amount to keep the blood volume and red cell count as near normal as possible. In an adult, certainly four to eight liters per 24 hours will be required in a moderate degree burn. As the hemoglobin and red blood cell count give one a fair estimate of the hemo-concentration as the salt solution is given, both should be checked repeatedly and kept within normal limits. A fair index of the

progress of the shock is thus given to one. Isotonic salt solution or Hartman's balanced solution should be used—no matter what the quantity—until the hemo-concentration returns to normal and it should be maintained at this level until the loss of fluid to the subcutaneous tissue planes ceases.

Isotonic salt or Hartman's balanced solution is recommended as it does not particularly disturb the acid-base balance and the electronic concentration of the blood glucose is ordinarily not necessary except in children when there is a starvation element. If sufficient glucose solution were given to meet the shock indications, a hyperglycemia might result and some of the water should have to be utilized to excrete the excess of sugar. However, if an acidosis from starvation in a child seems to be present, sufficient of a 5 per cent glucose solution which is isotonic with the blood should be used to alleviate the symptoms.

In regard to the early local treatment it has come to be quite generally recognized that the fixation method has advantages. A solution with a dessicating or a fixing action is sprayed or painted on the burned area or a dressing continuously moistened is applied. Among the drugs that have been used are absolute alcohol which, although expensive, gives remarkably good results; aluminum acetate, picric acid, and the tannic acid of the Davidson technique. Although we doubt that the original conception of Davidson and others holds in that the symptoms of an acute burn are due to the absorption of disintegrated protein toxin. It seems that most of the series of cases published do show a decreased mortality rate with the tannic acid fixation technique of Davidson, Wilson, Beekman, Rogers, and Bancroft all report about a 50 per cent mortality decrease if they interpret their statistics correctly. This record cannot be overlooked.

During the first 24 hour period no great reduction in mortality is shown. No treatment saves those too badly burned—50 to 90 per cent of the body surface. During the second 24 hours, the method shows a considerable reduction in mortality and there is a reduction in mortality of later deaths in the period of infections and septic complications. It is possible that a better knowledge of the factors influencing systemic collapse may have something to do with decreased mortality. The strong arguments for the fixation method is the evidence of the patient's comfort and the fact that the method is simple and tends to early cleanliness of the burnt tissue. At least for the first week or ten days, the patient needs little attention so far as the local wounds are concerned. It is doubtful if the enthusiasm expressed in favor of more rapid epithelialization with the tannic acid method was justifiable. It is true that if the basic layer of skin has not been killed when the coagulum separates, complete epithelialization may seem to be present at the end of two weeks but this occurs in any method of treatment. The method is practical and economical. The fresh tannic acid solution can be made up from one-half teaspoon of tannic acid to one ounce of water.

Probably for the local treatment all in all, the tannic acid fixation method is the most efficient during the early period of burns. That is, during the stages before the slough tends to separate from the granulating base which forms beneath the dried fixed crust. The method originated by Davidson has been modified slightly in the following description: The skin surrounding the burned area is cleaned with benzine and from the burnt area gross dirt is removed with instruments. Five per cent tannic acid (in a freshly prepared solution) is then sprayed over the wound. The child is placed on a sterile sheet without clothing. Blankets are placed to form a tent over the bed. Two or three electric light bulbs are suspended from the top of the tent for light and for warmth. Every half hour the wound is sprayed with tannic acid. No dressings are applied. After about an hour, the pain mostly ceases. In from 15 to 24 hours depending upon the depth of the burn, a dry brown heavy insensitive crust forms over the wound. Whether or not any surface applications in deep burns reach the lowermost layers is questionable, to say the least. In from

three to four days in most cases, the evidence of toxemia tends to subside. In areas superficially burned, after about one week the crust begins to loosen and epithelialization starts. In areas burned more deeply in from two to three weeks, a line of demarcation forms between the dead and live tissues. At this time a roller gauze bandage is wrapped about the area and kept continuously saturated with saline, or when pain on dressing is pronounced the child is placed in a tub bath of saline for two or three hours daily and then placed under the electric lights. When evidence of infection appears beneath the crust, holes are made in it and one or the other of the types of wet dressings just described are started. Wet dressings and soaks serve to give and control drainage and also hasten the separation of the dried fixed slough from the underlying granulation tissue bed."

Recently Blair and Brown even from the inception of the burn have advocated treating a burn like any other wound by continuous saturated hypertonic saline wet dressings or tub soaks in hypertonic saline with dry heat alternated to meet the indication. They state that "in any but superficial injuries real success will not depend on the use of this or that drug or dressing, the nominal adaptation of this or that plan or one treatment no matter how perfect its inception or its execution but in the intelligent forceful persistent carrying out of an adequate program." An anemia is likely to develop which retards the fighting forces of the surrounding tissue during the time of separation of dead from live tissue. This is best combated with an occasional blood transfusion as indicated. Later when the time for a skin grafting has arrived, the patient will not then be anemic and there will be less likelihood of infection destroying the graft or the underlying tissue showing too little reactive qualities for the graft to quickly "take."

When nature begins to loosen and separate the dead tissue from the live tissue, the final stage is at hand—the early cosmetic and functional repair with the prevention of permanent deformity from cicatricial contractures. To prepare the granulating base for the application of skin grafts the continuously wet roller gauze dressing possibly alternated with the tub soaks are continued. Crusts and scabs loosen, the slough separates and the underlying base of granulation is stimulated to healthy growth and made as near sterile as possible. When no serious complications set in and an anemia is not allowed to supervene, by the end of four or five weeks at the most all damaged tissue is spontaneously thrown off except exposed tendons and bone. A firm scar bed supporting healthy granulations has now formed.

One aims to keep the wound relatively clean. To make the patient as comfortable as possible, allow him to move as actively as possible, to prevent the tendency to secondary contracture. To support the patient's general condition and to repair the surface as early as possible before the new scar becomes heavy scar and has too great a tendency to contracture. Splints are seldom necessary. The amount of contracture depends upon the anatomical region and the amount of destruction of tissue. A splint will not prevent a hard scar from eventually contracting on the flexor or extensor surface of a joint. The prevention of contracture is due to the recognition of the amount of surface tissue loss and its adequate replacement. Large grafts of the Thiersch or so-called split type are used to cover the granulating surface when the time for skin grafting is deemed to have arrived. One can either slice off the granulations and apply a large graft to the yellow scar base or apply the graft directly to the granulation tissue bed. The latter is simpler when there is little tendency to contracture.

The proper after care of the thin graft is important. We have found that the application of a roller gauze saturated in saline over the graft holds it firmly from slipping. The gauze roll is kept wet continuously either by pouring saline on the gauze or by periodically placing the child—dressings and all—in a tub bath of saline. This gauze dressing is not removed for five days. One need not worry about inadequate drainage or de-

veloping infection of the graft if the gauze is kept wet at all times.

We believe that immediate debridements are illogical before the line of demarcation has formed between live and dead tissue as in other surgical conditions. It is not always possible at first to distinguish between partial and complete destruction of skin. When any of the epithelial elements have been spared, there will be spontaneous healing with a serviceable skin although the skin may be red and thick for a long time or may eventually become glazed. This spontaneous healing of partially damaged skin accounts for the healing of many burns under any plan of treatment followed with very little scarring which at first appeared fairly deep.

Early a healed scarred surface has a decreased resistance to any trauma or to lower tone of the patient; it tends to dryness and keratosis—probably due to lack of normal skin gland secretion—but eventually the resistance of such a surface increases and the deep part of the skin softens and becomes more pliable.

When one awaits spontaneous epithelialization of the whole surface of a burn near the flexor or extensor surface as the case may be of a joint, depending upon the amount of surface tissue loss, serious contracture and fixation of the joint or joints, or even distortion of bone in a growing child—is the usual result.

As mentioned previously usually thick split grafts are used in preference to the full thickness grafts—especially when unhealed surfaces are present because of the greater assurance of their "take" and the shorter time necessary for healing.

In healed deformities, the extent of the original loss is estimated after complete relaxation of the contracture is given by cross-cutting and excising binding scars. The full thickness skin graft often has advantages in healed contractures as in these cases under proper conditions the "take" is almost as certain as that of the split graft, the contracture after healing is less and the resultant cosmetic result —if such is deemed important—may more nearly resemble that of the normal skin.

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UNIVERSITY OF KANSAS MEDICAL SCHOOL CLINIC

Pus in the Urine*

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This paper has been prepared for the purpose of reviewing and re-emphasizing one of the cardinal findings which if neglected often proves a great hazard to health.

The importance placed upon pus in the urine by life insurance companies; the increasing interest of laymen in periodic health examinations and benefits which result from finding the source of pus in the urine, are among the factors which should keep this subject fresh in the mind of every physician.

Five to seven pus cells per high power field[1] is quite generally conceded to be the upper acceptable limits. Ockerblad[4] advocates a more accurate method for reporting the pus cell count i.e. Fuchs-Rosenthal spinal fluid counting chamber, and the number reported in cells per cubic centimeter. Either standard has a definite place in diagnostic measures.

Finding pus in the urine is not a difficult task, yet routine urine examination is not to be minimized in favor of some gross lesion which may be only co-existent with the real cause of the pyuria.

Pus in the urine may arise from any part of the genito-urinary system, that is from kidney cortex to urethral meatus. The etiology depends of course,

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upon the location and character of the inflammatory or infective process. All cloudy urine does not contain an excessive number of pus cells; simple laboratory tests often prove the presence of urates, phosphates, bacteria, or chyle.

Pyuria cases may be divided clinically into two groups: Those with objective findings and localizing symptoms, and those without local findings.

The cause of pus in the urine in many cases is very difficult to find. It may be necessary to examine a number of single or 24 hour specimens before a clue is found.

The urologist equipped as he is for a complete study of the urinary tract should be consulted early. He should be willing to cooperate with the family physician, and together much time and suffering should be saved the patient.

Too often I believe the case is treated until the patient shows discouragement, then the urologist is urged to make a complete study at one sitting; give all the sources of infection and perpetrate an early cure. This is not fair to the patient as repeated examinations often reveal.

I wish to outline briefly eight common sources of pus in the urine:

1. A constricted urethral meatus may easily prolong an urinary infection.

2. Periurethral glands once infected may constantly supply pus to the urine.

3. Strictures of the urethra may easily produce obstruction and prolong an inflammatory reaction of the urethra.

4. Prostatitis, seminal vesiculitis; or perhaps more correctly a prosto-vesiculitis in the male is a very common and often neglected source of urinary infection. Many such cases are slow about showing localizing signs and are quite often discovered only in the thorough searches for a focus of infection which might account for recurrent myalgias, neuritis or rheumatism attacks.

5. Acute urethritis, specific or nonspecific we need only mention since it usually is an obvious factor; not so, however, with the old chronic urethritis which may be tolerated with little or no localizing symptoms.

6. Trigonitis and cystitis are most always accompanied by varying degrees of localizing symptoms and likewise yield varying quantities of pus to the urine.

If the infection is located in the bladder then certain questions must be answered. Is obstruction a causative factor? If so, where is the obstruction? Is it a urethral stricture associated with a bulbous urethral infection? Is it a median bar or an adenoma of the glands of Albarron or is it an obstruction produced by a hypertrophied prostate, perhaps including calculi? Then too, lesions of the nervous system producing spastic conditions of the vesical neck and loss of bladder tone must be thought about.

Other sources of infection may be vesical tumors, ulcers, diverticulii, fistula, stones, foreign bodies or infected blood clots.

Careful examination having failed to prove any of the former causes, there are still left the upper urinary tract sources.

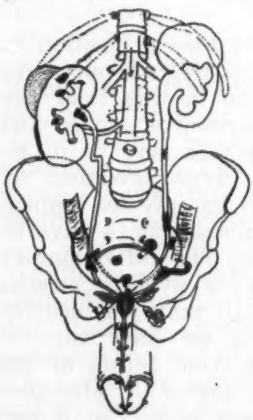
7. The ureter furnishes a location in which much infection may develop. In studying the problem in this field one must examine for strictures, stones and tumors. The obstruction may be of an acute inflammatory type produced by trauma, adjacent to an infected appendix; tubo-ovarian abscess or a diverticulitis of the colon. The inflammatory reaction accompanying pyelitis attacks and renal tuberculosis may produce obstruction. Then too we have the obstructions resulting from ptosis of the kidney with a fixed ureter by adhesions or an aberrant blood vessel, or a torsion and kinking to produce obstruction and the resultant infection.

8. Lastly the kidney itself is the upper urinary source of infection and it may in turn be affected as a result of any of the foregoing causes of pus in the urine. Pyelitis or perhaps more correctly pyelonephritis may supply many pus cells to the urine. The pyelonephritis may be caused by any one of a number of bacterial organisms which may invade the kidney; also colon bacilli, tuberculosis bacilli, staphylococcus

or streptococcus organisms. Lesions such as renal calculi, tumors of the pelvis, tuberculosis, infected hydronephrosis, hypernephromas or renal abscesses may load the urine with pus.

Pus may easily be found in the urine. It is not always so easy when we try to determine the cause. For instance, 15 per cent of the stones[1] will not cast shadows, nor do all the stones produce symptoms, and if they do, the symptoms may definitely be located on the opposite side from the site of the stone.

Tuberculosis presents unusually difficult problems. Sixty-five per cent of such cases may persist as chronic cystitis in spite of ordinary treatments. In 10 per cent of the renal tuberculosis cases we find a symptomless pyuria[1]. For perhaps two or three years about 90 per cent of the renal tuberculosis cases will remain confined to one kidney. It should not be necessary here to emphasize the importance of early diagnosis and removal of the kidney affected.



Many of the common causes of pus in the urine have been enumerated and the accompanying diagram shows graphically the locations of such causes. There may be, of course, a combination of two or more of these lesions.

It is recognized there are many acute intra-abdominal extra urinary cases. It is also recognized that acute abdominal cases have been hurriedly operated and intra-urinary symptoms persist post operatively. Such results might be avoided in all fairness to the patient.

The urologist recognizes that the urinary tract is not the only important system in the body, and freely admits the importance of the family doctor and all the other specialists in dealing with the human system. We as urologists, feel charged with certain responsibilities concerning this system that has to do with the disposal of end products, reproduction and regeneration.

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TUBERCULOSIS ABSTRACTS

Furnished through the courtesy of The Kansas Tuberculosis and Health Association

The outcome of any tuberculous infection depends upon the resistance offered by the body. Whatever subtracts from the patient's physiological resources presumably hinders recovery. Concurrent disease of any kind places a handicap on the tuberculous patient. Syphilis is widely prevalent, tends to be chronic, is often undiscovered, and frequently masquerades as something else. To what extent does syphilis complicate tuberculosis? Oscar Orszagh of Budapest summarizes in "Tubercle" of January 1933, certain statistics, conclusions and implications bearing on the coexistence of tuberculosis and syphilis. The following abstract of his article was prepared by the American Social Hygiene Association.

Pulmonary Tuberculosis and Syphilis

Deaths from syphilis rank high: in England 10 per cent, in France 16 per cent, in the United States 17 per cent, of the total mortality can be traced to syphilis. On the other hand a study of a group of luetic patients in Germany indicated that 26.67 per cent of them died of tuberculosis against 22.5 per cent dying of syphilis. Similarly, in Finland of 734 syphilitic patients, 25 per cent died of tuberculosis while only 15 per

cent died of syphilis. Post-mortem examinations of 500 cases of syphilis showed that the cause of death was tuberculosis in 10.6 per cent of cases. These and other statistical studies and clinical observations indicate that syphilis hastens the progress of tuberculosis.

Because of the frequent coexistence of tuberculosis and syphilis, it is important that a careful search be made in tuberculous patients for evidences of syphilis. This search should include as an important feature, a careful history with repeated questions on subjects which might bring syphilis to light, as for example, history of primary sore, rashes, miscarriages and family histories. At the Queen Elizabeth Sanatorium in Budapest, only 1.7 per cent of the tuberculous patients having syphilis gave a clear history of this disease, while the total number found to have syphilis on the basis of history, and serological and clinical examinations was 9.3 per cent of all the patients in the sanatorium. It is desirable to examine the blood of the tuberculous patient routinely at least once and preferably oftener and to employ two tests as for example the Wassermann and one of the precipitation tests, bearing in mind always that the blood test may be negative even in the presence of syphilis. Orszagh does not think it necessary to examine the spinal fluid in the majority of cases, a judgment with which the reviewer does not fully agree.

SIMILARITY OF SYMPTOMS AND LESIONS

A good many luetic conditions are mistakable for tuberculosis. Thus, there may be general systemic manifestation in early syphilis such as loss of appetite, paleness, raised temperature, headache, chest pains, gastric disturbances and jaundice, symptoms which resemble those of tuberculosis. In the secondary stage of syphilis patients may suffer from bronchitis and sore throat. Usually the lymphatic nodes are enlarged especially those of the groin and neck, and enlarged hilar lymph nodes are not rare in syphilis. Chronic syphilitic skin lesions and chronic syphilitic laryngitis are occasionally mistaken for tuberculosis. Pulmonary syphilis can cause alterations of lung tissue quite similar to those of tuberculosis. Disseminated gummata may resemble miliary tuberculosis, ulcerated gummata may resemble cavitation of tuberculosis. Histologically the lesion of pulmonary tuberculosis and of pulmonary syphilis may be indistinguishable. It is to be borne in mind that the two diseases may be present in the lung at the same time.

Simple pulmonary syphilis does not occur so often as the clinicians and roentgenologists diganose it. Neither is it so rare as the pathologists at present take it to be. The diagnostic difficulties are to be overcome only by exact systematic clinical, serological and *x*-ray examinations. Special significance is attributable to negative sputum, positive Wassermann, characteristic history and the good effects of anti-luetic treatment in arriving at a working diagnosis of pulmonary syphilis.

SYPHILIS DELAYS CURE OF TUBERCULOSIS

Tuberculosis at the Queen Elizabeth Sanatorium gave in general a graver prognosis in the presence of syphilis. The longer the intervening period between the outbreak of the two diseases, the less harmfully does lues influence the course of tuberculosis. In judging the effect of syphilis on tuberculosis, it is important to know what the condition of the lung was when syphilis was acquired and whether it has become worse. If the pulmonary lesions are old and healed, or if the patient is in good condition, syphilis as a rule does not affect this condition. But in the case of badly nourished old persons with little capacity for reaction, syphilis can attack the system to such an extent that the latent tuberculosis may be reactivated and become fatal.

In the same way, aggravation may follow fresh luetic infection in the case of persons whose lung trouble was extensive, but which had only showed slow progress till then. If a person suffering from active tuberculosis acquires fresh luetic infection, and his bodily resistance is weak, then the illness may have a very serious course, though it is also possible that the disease may later calm down and the prognosis become more favorable. Persons suffering from antecedent

lues may react to fresh pulmonary tuberculosis infection just as healthy persons would. Tuberculosis becomes fatal only if the lues causes lesions which disturb the working and vitality of the whole body, as for example cardiovascular lesions.

TREAT SYPHILIS WITH DISCRIMINATION

In the case of pulmonary syphilis the treatment of syphilis should be energetic. In the case of pulmonary tuberculosis complicated by syphilis, the treatment of syphilis should be cautious. In the choice of correct doses, the patient's general condition and the character of the pulmonary lesions are extremely important factors. With a weakened constitution, and active recent and exudative tuberculosis, the treatment of syphilis should be delayed until the general tuberculous condition has improved and it should then begin with small doses of bismuth. In the presence of fibrous pulmonary lesions syphilis may be treated safely with larger doses of bismuth, and neoarsphenamine may be used in moderate doses beginning with .15 grams and going up to .45 grams. Surgical treatment of tuberculosis is not barred by the presence of syphilis provided anti-luetic treatment is administered.

Pulmonary Tuberculosis and Syphilis, Oscar Orszagh, Tubercle, Jan., 1933.

Tuberculosis and Syphilis Compared

TUBERCULOSIS	
Essential lesion	Tubercle
Essential pathology	Destruction of tissue
Prevalence	About .7% of population (active cases)
Diagnostic criteria	History, symptoms, physical signs, tuberculin test, x-ray, discovery of organism
Prognosis	Good with early treatment
Treatment	General: rest, nutrition. hygiene, collapse

SYPHILIS
Gumma
Replacement of active with inactive tissue
About 5 per cent of population
History, physical signs, blood test, x-ray, discovery of organism
Good with early treatment
Specific: arsenicals, bismuth, mercury

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THE SURGICAL CLINICS OF NORTH AMERICA. (Issued serially one number every other month.) Volume 13, No. 1. (Pacific Coast Surgical Association Number—February 1933) 247 pages with 90 illustrations. Per Clinic Year (February 1933 to December 1933). Paper, $12.00; Cloth, $16.00 net. Philadelphia and London: W. B. Saunders Company, 1933.

The Clinics in this volume have been contributed by Fellows of the Pacific Coast Surgical Association and they are of the usual high standard of previous volumes.

Dr. L. Eloesser brings out some valuable points in his clinic on "Sites and Types of Amputation and Exarticulation Together with Some Notes on Technic."

Dr. Fred R. Fairchild states the age factor should be more seriously considered in a decision for conservatism on the part of the surgeon. He further brings out the fact that in their cases of acute appendicitis with general peritonitis, their mortality rate has been decidedly lowered since changing their operative technic of approach to the appendix by the muscle splitting incision far to the right rather than the right rectus incision.

Dr. J. Tate Mason and Joel W. Baker describe a modified technic of choledochoduodenostomy that may at times simplify this operation.

Many other instructive clinics are also given in this volume.—M.B.M.

THE PRACTICAL MEDICINE SERIES—GENERAL THERAPEUTICS—Edited by Bernard Fantus, M.S., M.D., Professor of Therapeutics, Universiay of Illincis College of Medicine, member Revision Committee, United States Pharmacopeia and of National Formulary Revision Committee and Louis B. Kartoon, B.S., M.D., Instructor of Medicine, University of Illinois College of Medicine. The Year Book Publishers, Inc., Chicago. Price $2.25.

This handy volume epitomizes the advances which have been made throughout the world in that comprehensive and all-important branch of medical science called therapeutics. Current medical litterature has been diligently explored, and wherever any contribution to the subject in hand has been found it has been abstracted for this book. The skill with which this condensation of material has been done is very striking. Every

(Continued on Page 200)

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EDITORIAL

COSTS OF MEDICAL CARE

The most important book published in the past year for the physician is the one offered by the University of Chicago Press entitled "Medical Care for the American People." Its cost is only $1.50 a copy. It includes a summary of the final report of the national Committee on the Costs of Medical Care, and discusses both the minority and majority reports. It is filled with factual data dealing with problems of medical practice that may have considerable influence upon it in the next ten years.

The report shows that the total health bill for this country for 1929 was three and one-half billion dollars, or thirty dollars per capita. This represents the entire cost of doctors' fees, hospital services, dentists' charges, nurses' care, and so on. It is not high when one considers that the people of this country spent almost twice this much for tobacco, toilet articles and recreation. Thirty per cent of the cost of this medical service goes to physicians in practice; 24 per cent to hospitals and 18 per cent for drugs alone. It also gives the information that three hundred and sixty millions were spent for patent medicines and one hundred and twenty-five millions were given to various medical cults. It also shows that the public spends more money for drugs and medicine than the entire cost of maintenance of all hospitals in the country. Yet one hears nothing about the high cost of drugs. The report indicates that the complaints on the cost of medical care are due to the unorganized distribution of the services and their unpredictable character. The average cost of medical care based on an analysis of numerous local experiments with organized methods of distribution of all adequate medical service shows the cost to each person per year to be twenty to forty dollars per annum, depending on the locality and the completeness of these services.

The report calls attention to several striking anomalous situations existing in the present management of the health needs of the country. Many diseases are increasing, such as cancer and heart disease, in spite of the fact that medical science has made more progress in the past fifty years than in all previous histroy. There seems to be an increasing lag between scientific advances and their popular appreciation and recognition. The medical profession has apparently not used enough effort to educate the public to appreciate and utilize these advances.

Furthermore, there is a discrepancy between the tendency of physicians to

specialize and the need for such specialists. Statistics show that 45 per cent of the men in practice limit their work wholly or in part to some specialty and only 18 per cent are really needed.

The report also gives the astounding data that the great majority of people do not receive adequate medical care. In the analysis of nearly 10,000 families 46 per cent of those whose income was below $1200 per annum received no medical care whatever, even though needed, and many of the others had very incomplete medical service. It shows there are thousands of well trained physicians struggling for the barest living, waiting for patients to treat and on the other hand there are millions of persons suffering for want of adequate medical services. There are hundreds of well equipped hospitals, with thousands of empty beds, struggling to avoid bankruptcy, while thousands of patients are suffering and often dying because of lack of hospital care. This is the result of unorganized distribution of medical services and inefficient utilization of those available. This fact brings up the question whether the proper distribution and utilization of medical services available would not justify considerable alteration of present methods of practice.

The Committee is to be commended upon the courage with which it has attacked the problems of medical practice and, while the medical profession may not agree with its recommendations for the solution of the problem, it should study their recommendations carefully in working out the best solution for delivering adequate medical service to every individual at a cost that he can afford to pay, or providing such service to the indigent without placing an unfair burden on private practitioners.

The report maintains that it is unfair and economically unsound to expect the private physician to provide medical services to the indigent population. The medical needs of the unemployed and penniless individuals should be borne by the community as a whole and not by the physicians and hospitals alone. Such care takes much of a physician's valuable time and he must make this up by charging his pay patients more. These patients represent a relatively small fraction of the community and are thus compelled to support this charity service and, consequently, are further penalized by being ill.

Two suggested remedies are offered by the Committee, one represented by the majority of the members and the other by the minority. The former would take the initiative away from the individual physician and substitute hospitals, institutions and groups for medical centers from which all medical services are rendered to the great bulk of the population. The latter would emphasize more and more the importance of the general practitioner as the unit from which more complete and efficient medical service should be rendered. The former plan would provide better organization and efficiency but would augment the evils of the group clinic, would take away from the doctor who is the most experienced and most capable individual, the control of medical services and tend to break down the vital, intimate relation between the physician and the patient, which is so important in giving the latter confidence in the former. The majority of the committee also recommended extension of government services. While it is probably true that the majority plan would provide better distribution it would be apt to lower the quality of the medical service rendered and leave the control of medical services in the hands of laymen.

The report of the Committee is a chal-

lenge to the medical profession. The present unequal distribution and often inefficient service has developed under the control of the medical profession. Now that their attention has been called to these deficiencies it is the duty of the physicians collectively to bend every effort to eliminate these evils. Individually, doctors have given unselfishly of their time and energy, but collectively they have allowed matters to develop to a point where they may lose control of the character of medical service to be provided the general public.

The minority report emphasizes that the general practitioner is the center from which efficient medical service must radiate. There is a tendency on the part of most laymen to let the members of the medical profession manage this care, but will they do this systematically and efficiently in each community? Fortunately, there are growing indications that physicians are recognizing they must act collectively as well as individually to provide adequate care to every patient at a cost he can afford. There are many who doubt the ability of physicians to get together and bring about a more efficient and equitable distribution of medical services. They feel that the doctors are either too busy with their own affairs, too jealous of each other or too individualistic to provide a general concerted action of all members of the profession in that locality.

It is quite necessary that each local medical organization, such as the county medical society, shall study the problems in its community and recommend and support a plan that will force the community as a whole to take its share in the care of the indigent and provide all other patients adequate medical services at a reasonable cost. It should be remembered that adequate medical service does not mean the best service. The latter may include many luxuries that are conventional but not essential to recovery from an illness and these add considerably to the expense of medical care. Most patients do not need special nurses, private rooms and special diets. For those who can afford these accessories they are entirely desirable. Failure to make such a study may lead to dissatisfaction and a revolt on the part of the public with the possible adoption of unpleasant and unsatisfactory plans of rendering medical services.

The criticism is often made of the modern physician that in his effort to conquer disease he often forgets that disease must have a patient to exist and that the patient should be given just as much if not more consideration than the disease. The physician should not only assist the patient in overcoming the disease but should also do this with as little expense as possible. Most doctors do keep this in mind but there are many who ignore the expense and demand unnecessary consultations and laboratory examinations. *x*-Rays are often taken and instruments of precision are often used when patients cannot afford them. Unnecessary laboratory procedures often undermine the patient's confidence in his physician, especially if he cannot understand why he has to pay all these extra charges. The clinical history and a thorough physical examination are inexpensive and usually provide the diagnosis. There are, of course, a smaller number of cases in which the use of such measures are definitely indicated and the additional cost justified. There are times when the patient urges these special tests upon the doctor, but if their expense and their futility in this particular instance be explained, the patient soon loses his enthusiasm for them. It is too often that these special procedures are ordered without ever explaining their need and

cost to the patient and, naturally, when he gets his bill he is quite irritated at all these extra charges.

Undoubtedly, the proposal of the minority members of the Committee offers the better solution of the defects in medical services rendered, but the great difficulty is whether the physicians as a whole will take this seriously. There are two objections to the success of this plan of making the general practitioner the center of appropriate and efficient medical care. First, the tendency toward "fee splitting," a pernicious practice that seems prevalent in certain communities although discountenanced by all reputable societies. This is a practice that inevitably breeds distrust of the doctor and makes the patient feel he is being "sold" to a certain specialist. This is one reason some patients pick out their own specialists.

The second objection is that the general practitioner does not always recognize the financial limitation of his patient and orders consultations, and laboratory and *x*-ray examinations that are not essential. Moreover, he often gives a drug that is expensive when a much cheaper one, that is just as potent, could have been given. Often a considerable amount is paid by the patient to get a drug under a particular trade name. For example, aspirin costs several times as much as acetyl-salicylic acid, and yet both are the same drug.

An important factor in enabling a general practitioner to carry out his practice economically and efficiently would be the establishment of diagnostic facilities at every hospital for the use of his patients, with a low charge just sufficient to cover the cost of these diagnostic procedures. Such facilities could be provided in any well organized hospital. The family doctor could then send his poorer pay patients to this clinic and get these procedures completed without financially ruining the patient.

One often wonders why there is so much complaint about the cost of medical care when the reports show that it is not exorbitant and that many physicians have an income of less than $2500. Perhaps this is due to much unfavorable propaganda, some of which may have been entirely unintentional. Even the hospitals get out reports that could be more favorable to doctors. In annual reports of hospitals considerable emphasis is placed on the number of free patients cared for and the number of free hospital days, but nothing is said of the money value of the operations performed and the visits by the attending men of these patients. If this were done the charity services expressed in dollars would not look so favorable as that of the services rendered by the attending staff, and the community would get a better conception of the charitable burden carried by the members of the medical staff.

It is perhaps also worthy of comment that the hospital in its early development was designed to aid the physician and to be one of the means of carrying out more efficiently and conveniently the physician's wishes. It was originally a distinct agent of the physician. The present tendency and the plan suggested by the majority report would reverse this relationship and make the physician an agent of the very instrument that he created, a rather dubious rearrangement.

Shortly before the final report of the five year study of the Committee on the Costs of Medical Care was published another five year report by a national Committee on Medical Education was submitted to the public. This report is filled with factual data on problems of medical education, the distribution of physicians, postgraduate medical educa-

tion, the tendency to specialization, and the costs of medical education. It shows that there are more physicians in the United States than are needed and that the present medical schools are producing more physicians than the country requires, causing more overcrowding, especially in the cities. It states that physicians tend to go to cities for social and economic reasons, and if better hospital facilities are provided or made accessible in the rural communities, many physicians would leave the crowded cities and go into the rural communities. This report gives data of the greatest importance to medical students and teachers and it is a most valuable supplement to the recent report of the larger committee.—H.R.W.

EDITORIAL COMMENT

Recent studies indicate a ten per cent decrease in mortality in pneumonia cases treated with oxygen.

The annual meeting of the Mid-Western Section of the American Congress of Physical Therapy will be held at the Hotel Jefferson, Peoria, Illinois, May 15.

Harvey J. Howard, M.D., Professor of Ophthalmology, Washington University School of Medicine, has resigned to enter private practice. Dr. Howard was one of the guest speakers at the 1932 meeting of the Kansas Medical Society.

During the year 1932 the total number of deaths in the state from diphtheria was 75, an increase of seven over the year 1931. Typhoid fever deaths totaled 31, a new low record. Tuberculosis caused 622 deaths, the previous low number being 645 in 1927.

Glover and Engle report the production of metastatic malignancy in one of a group of guinea pigs inoculated with a culture containing a spore-bearing microorganism which was isolated on special medium from the tissue of a microscopically proved carcinoma of a human breast. (*Public Health Reports,* March 31, 1933.)

"It has been said that if our nasal secretions were tinted with some bright color, the most fastidious of us would marvel at our own carelessness and a little more care along this line coupled with shielding the face during coughing and sneezing would matrially reduce the incidence of diseases transmitted by fomites."

House Bill No. 431, as reported in the March JOURNAL requires the annual registration of all doctors of medicine practicing in the State of Kansas. Registration is effective July 1. Dr. C. H. Ewing, Secretary of the Board of Medical Registration and Examination will forward the necessary forms to the last known address of all physicians licensed by that board.

Thirty years ago it was thought that cancer was a disease peculiar to man. The fact that animals suffered from cancer was not recognized. As the result of a great deal of research work, Bashford and Murray were able to prove that cancer occurs throughout the vertebrate kingdom, and that in its general biological and pathological features cancer in vertebrate animals is subject to the same laws that govern its incidence in man. Its occurrence is most frequent, both in man and in animals, when the subject is in advanced years. Cancer is thought to be about fifty times less frequent in young people than in middle aged and old people. (*Jour. I.S.M.A.,* Feb., 1933.)

THE LABORATORY

Edited by

J. L. LATTIMORE, M.D., Topeka

Gastric Contents

In considering the gastric contents and its pathological changes a brief review of the physiology involved will give us a better understanding of the entire subject.

The different secreting glands located for the most part in the upper digestive tract, such as the salivary and gastric glands, secrete ferments, enzymes, water and inorganic substances which in turn break down the carbohydrates into monosaccharids, neutral fats into fatty acids and glycerine and the proteins into amino acids. Further down the digestive tract we have the secretions from the liver, pancreas and the crypts of Lieberkuhn, all of which play a very definite role in digestion and a disease of one of these glands or a combination of these glands results in many of the so-called "stomach upsets."

The control of these glands is through either the nervous system or by hormones. The salivary glands are an example of the nerve controlled; the liver of the hormone controlled. The gastric glands are partly under nerve control and partly under hormone control. The common expression "it makes my mouth water" is literally true, the presence of appetizing foods stimulates the salivary glands. Experimentally at least this is true and in sham feeding of dogs it has been proven that certain gastric glands react to nerve stimulation, through the vagus. Carlson is of the opinion, however, that in man with the highly complicated nervous system, this stimulation is completely absent in most cases. There can be no doubt but that palatability of food plays a very important part in salivary and gastric secretion. This point has a very practical application in the convalescing patient. Rather than order diet number so and so, why not inquire of the patients as to their likes and dislikes and then order food they will relish.

These nerve stimulated juices, so-called appetite juices, last for only about 15 to 20 minutes while the food remains in the stomach for about four hours. It would follow then, that there must be other digestive juices and they must be hormone controlled. It is well established that this is a chemical stimulation and not mechanical, such as a foreign body or tumor in the stomach or intestine.

The average meal in the normal stomach causes a secretion of approximately 700 cc. of gastric juice of which about 200 cc. is secreted within the first hour; 150 cc. in the second hour and 350 cc. in the third and fourth hours. Fats inhibit the secretion of gastric juices and many cases complaining of nausea following a meal can be explained when the diet is investigated and found to be overbalanced with fat.

The pancreatic juice for the most part is under hormone control, the nerve control playing very little part. As a result, the secretion does not depend upon the kind of food so far as palatability is concerned but it is known that the secretion is more active in the presence of bread and less so with milk. The pancreas secretes an enzyme which acts on polysaccharids and another on fat.

Bile is delivered from the gall bladder as a result of reflex contraction of the gall bladder due to nerve end stimulation, resulting from chyme coming in contact with the duodenal mucosa. A portion of this bile aids digestion for a certain part is reabsorbed. In addition to aiding digestion, bile also aids in the absorption of fats.

Digestion in the stomach is mainly carried out by the hydrochloric acid secreted in the cardiac end of the stomach and pepsin, which is secreted in both the cardiac and the pyloric ends. The acid has three functions: assists pepsin in digesting proteins; assists in the inversion of saccharids and acts in an antiseptic capacity. In the normal stomach, the gastric content, as leaves the pylorus is sterile.

In the intestine, in addition to the different juices, bacteria play a very important role, especially in splitting proteins and carbohydrates.

Now that the physiology is briefly reviewed, we come to the routine examination of gastric contents, which will be discussed next month.

RECENT MEDICAL LITERATURE

Edited by
WILLIAM C. MENNINGER, M.D., Topeka

ASTHMA

Rackemann as the result of this study finds that the longer a series of patients with asthma is studied, the more evident it becomes that true "cure" is a doubtful prospect even though the patient may remain symptom-free for long periods. The number of cases originally studied was 1,074. In 1928, the number of "cured" cases 213 and has been reduced to 131 or 12 per cent, of the original total. It seems evident that fundamental allergy is a remarkable persistent trait. The conception of the "capacity to develop a sensitiveness" as a supplement to von Pirquet's conception a "capacity to react" seems justified by the observation of patients over periods long enough to see that they tend to develop sensitiveness to new substances in their environment. It is the capacity which is fundamental. Its nature is quite unknown. The author feels that progress will be more rapid as one learns that in asthma the fundamental problem lies not in the sensitiveness to any particular protein or in the incidence and treatment of nasal disease, but in the study of the capacity to develop sensitiveness to foreign substances.

Asthma: XVI. Two Hundred and Thirteen "Cured" Patients Followed Up Four Years Later, Rackemann, Francis M.: Archives of Internal Medicine: 50:819-829, December, 1932.

LEGAL ASPECTS OF PROTECTION IN RADIOLOGY

The writer outlines in detail the precautions that the radiologist should take and in the summary states that he should make accurate, clear records at the time of treatment, taking care to show what information and instructions were given to the patient. He should get accurate history covering all information required, even if one must press for it. Particularly is it important to avoid perfunctory compiling of histories by unskilled assistants. The patient should receive and understand proper instructions for the care of irradiated areas to protect themselves and the radiologist, especially should they be warned of the dangers of additional exposure on the same or adjacent areas until directed by the radiologist. One should leave as little to technicians as possible and supervise that little as closely as possible.

Legal and Insurance Aspects of Protection in Radiology. Wanvig, H. F. Radiology. 19:29-32. July, 1932.

JUVENILE OBESITY

The writer who is from the Endocrine Clinic from the Department of Medicine at the Northwestern University Medical School, chooses 50 unselected cases of obesity in childhood and adolescence to study the possible relationships of obesity with endocrine disturbances. He starts by pointing out the divergence of opinion, some observers regarding glandular disorders as unimportant as primary causative factors in obesity and others considering the majority of cases of obesity on an endocrine basis. From this study the author finds that 44 out of the 50 cases showed some disturbance in the pituitary and sex glands, moderately low basal metabolism without hypothyroidism, abnormal sugar tolerance, or mental deficiency. However, these anomalies found represent deviations from the normal in both directions inasmuch as in some cases hypofunction and in other cases hyperfunction of the same gland was found. This suggests that there is a relationship between endocrine anomalies and obesity but that it is of an etiological nature. He believes that the etiology of obesity whether it is juvenile or adult is a disturbance of the mechanism that regulates the body fat content, and is probably hypothalamic in origin.

Juvenile Obesity. Rony, Hugo R. Endocrinology. Vol. 16: 601-610. November-December, 1932.

ARSPHENAMINES IN NEUROSYPHILIS

The writer's material consists of 500 cases of neurosyphilis, of which 79 per cent were men and 21 per cent were women. It is shown that the more serious type of involvement is much more common in cases where arsphenamine was

not given, as compared with the cases in which inadequate or adequate arsphenamine treatment was given. Of the fifteen patients who were well treated during the acute syphilis, 60 per cent manifested asymptomatic neurosyphilis. Adequate antisyphilitic treatment given after the diagnosis of neurosyphilis had been proved efficient when its effects on the spinal fluid, blood and clinical symptoms are considered. This efficiency is equally manifest in cases in which previous treatment had not been given, except that the blood was normal in a greater percentage if arsphenamine had been given previously than if it had not been given. That arsphenamine predisposes to, or induces the development of, neurosyphilis is not borne out by this study. In 500 proved and unselected cases of neurosyphilis, arsphenamine had not been given in the early period of the infection in 85 per cent. It is felt that the modern treatment of neurosyphilis is of pronounced value in reducing to a minimum the clinical, serologic and spinal fluid manifestations of the disease.

The Arsphenamines as Factors in the Production of Neurosyphilis, O'Leary, Paul A., Rogin, James R.: Archives of Dermatology and Syphilogy, 26:783-797, November, 1932.

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(Continued from Page 192)

topic is made readable and interesting. Few writers can compress their subject matter without exsiccating it. But this little book has all the juice and flavor that any one could desire. I can heartily commend it to the busy practitioner as a practical help and pleasant diversion in his crowded life.—O.P.D.

UROLOGY, edited by John H. Cunningham, M.D., Associate in Genito-Urinary Surgery, Harvard University Post-Graduate School of Medicine. The Year Book Publishers, Inc., Chicago. Price $2.25.

The 1932 Urology Yearbook, edited by Dr. John H. Cunningham, one of the best beloved of American urologists, lives up to its reputation of supplying much valuable information in a condensed form. Covering a multitude of subjects, and containing some unusually excellent plates, this little book serves a unique purpose. The 24 pages in this edition given to transurethral operations are particularly valuable. not only because of the bibliography, but because of the newness of this most important subject.—A.D.G.

THE PRACTICAL MEDICINE SERIES—NEUROLOGY, edited by Peter Bassoe, M.D., Clinical Professor of Neurology, Rush Medical College of the University of Chicago. PSYCHIATRY, edited by Franklin G. Ebaugh, A.B., M.D., Director, University of Colorado Psychopathic Hospital; Professor of Psychiatry, University of Colorado School of Medicine. The Year Book Publishers, Inc., Chicago. Price $2.25.

This little compendium which for the first time is put out under joint authorship of Doctors Bassoe and Ebaugh maintains its former very high standard of reviews. Doctor Bassoe points out that there is an increasing number of motor accidents and head injuries which is the subject of an ever increasing output of articles. Other subjects of unusual scientific interest have been spinal anesthesia, serums and vaccines, and unsuspected chemicals used in various industries. Doctor Bassoe believes the outstanding contribution of the year has been Cushing's description of the clinical picture of basophilic adenoma of the hypophysis.

Doctor Ebaugh regards the most significant scientific trend to be the closer relationship established between psychiatry and the other fields of medicine, especially pediatrics. More articles have appeared concerning psychiatry in medical education than in previous years, as well as placing emphasis upon the value of psychotherapy in general medicine.

This is an excellently prepared little book, well bound, of 468 pages with a very good index both of subjects and authors.—W.C.M.

THE PRACTICAL MEDICINE SERIES—OBSTETRICS, by Joseph B. DeLee, A.M., M.D., Professor of Obstetrics, University of Chicago Medical School; Chief of Obstetrics. Chicago Lying-In Hospital and Dispensary. GYNECOLOGY, by J. P. Greenhill, B.S., M.D., F.A.C.S., Associate Professor of Clinical Gynecology, Loyola University Medical School; Professor of Gynecology, Cook County Graduate School of Medicine; Attending Gynecologist, Cook County Hospital. The Year Book Publishers, Inc., Chicago. Price, $2.50.

The yearbook, Obstetrics and Gynecology, series 1932, is of marked interest in the careful short reviews of the literature on obstetrics and gynecology of the past year, with interesting and instructive comments by the editor at the end of most of the articles. This is especially true in the section on obstetrics.—W.H.W.

COUNTY SOCIETY NEWS

BARTON COUNTY MEDICAL SOCIETY

The Spring Meeting of Barton County Medical Society, held at St. Rose Hospital, Great Bend, April 21, was attended by 53 doctors from various parts of western Kansas.

Dinner was served at 7 p. m. by the Sisters of the hospital and was of the usual high quality that has helped make our meetings popular. This was followed by a regular program in the auditorium of the hospital which was arranged and given by the Sedgwick County Medical Society. Dr. Fred J. McEwen, Wichita, presented a very instructive paper on the "Irregular Heart", which was illustrated with lantern slide drawings and electrocardiograms. Mr. Mac F. Cahal, lay secretary of the Sedgwick County Medical Society, gave a very interesting account of recent legislation at Topeka and stressed the necessity for the medical profession to take up the question of public relations, of entering the political field and lobbying for what we want, and for more information and contact with the public by radio, the press, and other ways to break down State Medicine and build up the intimate relationships of doctor and patient He urged a full-time secretary for the state society and an aggressive, efficient program for years to come to combat the cults and secure for medicine the recognition due it. His talk brought considerable discussion started by Dr. Scales of Hutchinson, who strongly approved the full-time secretary plan and a perpetual lobby at Topeka. Dr. Melencamp, Dodge City, thought these meetings would do much to crystalize sentiment among doctors to get somewhere. Dr. McEwen thought more men should attend the state meeting and stay for the third day and see that delegates were instructed to get these things, and see to it that live men were selected on the Board of Counsellors. Dr. T. J. Brown of Hoisington thought all the societies there represented should see that they were represented in the House of Delegates and were instructed to get busy toward the accomplishment of these things. Dr. Ewing, of Larned, took issue with the lobbying idea as proposed and thought more was gained by the state society's policy of writing and telegraphing remonstrances to the members of the legislature. Dr. Ewing also asked the support of the profession in the newly enacted registration law. Dr. Robison urged doctors to participate in civic affairs of their town.

Visiting doctors from the following towns outside of Barton County included Wichita, Hutchinson, which chartered a bus and came in a group, Sterling, Stafford, St. John, Kinsley, Rozel, Dodge City, Coats, Pratt, Ness City, Spearville, Hays, Bushton, Lyons, and Chase.

The Society feels highly complimented on the large attendance from such a section of the state and believes that much good was done in arousing a sentiment for vital changes in medical matters in Kansas.

L. R. McGILL, M.D., Secretary.

CLAY COUNTY MEDICAL SOCIETY

The April meeting of the Clay County Medical Society was held Wednesday evening, April 12, at the Municipal Hospital in Clay Center. Dr. C. E. Earnest of Pueblo, Colorado, discussed "Lipiodol Injection of the Paranasal Sinuses" and read numerous case reports supplemented with *x*-ray films to demonstrate the method and the results. He also showed a motion picture illustrating tonsillectomy by the suspension method.

L. E. Alquist, D.D.S., of Clay Center, was a guest.

W. H. ALGIE, M.D., Secretary.

DICKINSON COUNTY MEDICAL SOCIETY

The regular quarterly meeting of the Dickinson County Medical Society was held at Hotel Daily in Herington, April 20.

After the usual dinner and business the following papers were presented: The Diagnosis and Treatment of Goiter, by Tracy Conklin, Jr., M.D., Abilene, and The Differential Diagnosis of Acute Diseases of the Abdomen, by R. G Gomel, M.D., Abilene.

Both papers covered their respective fields very thoroughly and were enjoyed by all members present, as evidenced by

the comment aroused.

We were pleased to have Captain Cuban of Ft. Riley as a guest at the meeting.

The next meeting will be held at Hope, July 20.

K. E. Conklin, M.D., Secretary.

FORD COUNTY MEDICAL SOCIETY

The Ford County Medical Society held their regular monthly meeting in the Lora Locke Hotel, Friday, April 14. Dinner was served in the Jade room at 6:30 p.m. to forty members and visiting doctors. The guest speaker was Dr. Calkins of Kansas City who gave a very interesting discussion on "Cancer of the Cervix, the Diagnosis and Treatment with *x*-Ray and Radium." He had many lantern slides and stressed the importance of typing the cancer by biopsy.

Doctors Vermillion and Bernstorf of Pratt gave an interesting case history with many *x*-ray pictures.

After an informal but spirited discussion of the desperate plight of community hospitals the secretary was ordered to send the following wire to the President of the United States:

"Be it resolved by the Ford County Medical Society and representatives from Gray, Kiowa, Edwards, Pratt, Haskell, Grant, Finney, Hamilton, Ness and Pawnee counties, that said society and representatives in regular meeting, go on record as being opposed to the opening and operation of the Veterans Hospital in Wichita, and that said society strongly urge the President of the United States to prevent such opening in the interests of economy and general public welfare, believing that the patients can be better cared for in hospitals in their home communities, these hospitals, because of the desperate economic conditions are near empty or closing, leaving tax burdened communities without hospital facilities.

"This measure is prompted by the belief that an investigation should be instigated to determine why the unreasonable expenditure of approximately a million and a quarter dollars for the building of a 150 bed hospital."

The Dodge City Chamber of Commerce requested the Ford County Medical Society appoint a committee to confer with them in reference to the unsatisfactory working of the Crippled Children's Law. Doctors Janney, Dennis and Hooper were appointed on this committee. From the discussion it would appear that this section of the country is not as yet "Chandler conscious."

Doctors Dennis and Klein were appointed delegates to the annual meeting at Lawrence.

A motion was made and carried instructing the Secretary to send a memorandum to the Kansas Medical Society expressing our discontent with the Crippled Children's Law and urging them to protest against this discriminative, unnecessary and unfair law.

C. L. Hooper, M.D., Sec.-Treas.

THE LYON COUNTY MEDICAL SOCIETY

The Lyon County Medical Society held its regular meeting at the Newman Hospital, in Emporia, at 8 p.m., April 4, following the usual monthly dinner.

Dr. Frank Foncannon, of Emporia, presented a case, demonstrating end results of very severe burns of the lower extremities.

Dr. Ralph H. Major, of Kansas City, was the speaker of the evening. His discussion was "Diabetes Mellitus," stressing mostly the history, differential diagnosis and treatment. The paper was very interesting and was followed by considerable discussion.

Two guests from the Greenwood County Medical Society were present.

D. R. Davis, M.D., Secretary.

RUSH-NESS COUNTIES MEDICAL SOCIETY

The Rush-Ness Counties Medical Society met at the office of Dr. W. Singleton, La Crosse, Kansas, April 18.

Due to the storm Dr. Latimer was called home and not many came. Dr. N. W. Robinson presided in Dr. Latimer's absence. The meeting was called to order and as there was no new business the scientific program was opened.

Dr. Coffey of Hays presented a paper on "Osteomyelitis" with lantern slides; also gave the diagnosis and treatment of the disease. This was an excellent paper

and was discussed generally by those present. Because of the storm the meeting was adjourned to meet in May at the office of Dr. Robinson at Bison.

An excellent lunch served by Mrs. Singleton, who was assisted by Mrs. Pokarney and Mrs. Harper, was enjoyed by all.

The visiting guests were Doctors Coffey and Scherr of Hays; Dr. Brady of Plainville; Mr. Harper, druggist at La Crosse, and Mrs. Harper; Mr. Pokarney, also druggist at La Crosse, and Mrs. Pokarney; and Dr. Eberhart, dentist at La Crosse.

Members present included Doctors Attwood and Singleton of La Crosse; Robinson of Bison, and Latimer of Alexander.

W. Singleton, M.D., Secretary.

SHAWNEE COUNTY MEDICAL SOCIETY

The regular monthly meeting of the Shawnee County Medical Society was held at the Hotel Jayhawk, Monday evening, April 6, President Marvin Hall presided.

The guest speaker, Bernard H. Nichols, M.D., Director of Roentgenology, the Cleveland Clinic, Cleveland, Ohio, discussed the "Differential Diagnosis of Upper Right Abdominal Pain Roentgenologically Considered." Dr. Nichols' talk was extremely interesting and illustrated with approximately 100 lantern slides.

More than 90 members of the society and visiting physicians were present.

Earle G. Brown, M.D., Secretary.

WYANDOTTE COUNTY MEDICAL SOCIETY

The Pathological Conferences, conducted by Dr. H. R. Wahl, and Dr. Kerr of the University of Kansas, School of Medicine, in the Wyandotte County Medical Society, have been proving very valuable and very instructive to the members of the Society. This is, perhaps, best evidenced by the increased attendance at each meeting since these conferences were installed.

On April 4, Dr. M. A. Walker gave a very instructive presentation of the "Value of Simple Laboratory Procedure in the Management of Surgical Cases." Dr. J. B. Nanninga read a paper on "The Reactions Following the Treatment of Syphilis." On the same program, Mr. Seath, of the State Dairy Association, presented facts about "Milk and Its Value as a Food." On April 18, a clinical program was presented, at which time Dr. D. N. Medearis presented a case of Primary Anemia in an infant; Dr. C. E. Coburn, a case of Spleenic Anemia in a girl 10 years old; Dr. C. J. Mullen presented a case of Disuse Amblyopia; and Dr. A. J. Rettenmaier presented a case of Ruptured Appendix with abscess which drained through the abdomen and rectum.

The following names were passed for membership in the Wyandotte County Medical Society: Doctors C. Alex McBurney, Otto J. Hartig, E. C. Badger, and Emery C. Bryan. The membership in the Wyandotte County Medical Society has shown an increase this year over previous records.

It was voted by the society that a spring party for the doctors and their wives, consisting of a banquet program and dance, should be given at Quivera Lakes Clubhouse on the evening of May 31. The dentists and druggists and their wives will be invited to attend the party.

O. W. Davidson, M.D., Secretary.

DEATH NOTICES

Close, Joseph H., Topeka, aged 68, died April 7, 1933. He graduated from Rush Medical College in 1894. He was not a member of the Society.

Jenkins, Noah Samuel, Kansas City, aged 68, died March 8, 1933, of acute myocarditis. He graduated from Lincoln Medical College in 1907. He was not a member of the Society.

Minney, John E., Altadena, California, aged 88, died April 10, 1933. He graduated from Kansas City Medical College in 1880. He was formerly an active member of the Kansas Medical Society.

Yingling, William A., Emporia, aged 82, died April 7, 1933. He graduated from Kansas City Homeopathic Medical College in 1890. He was not a member of the Society.

KANSAS MEDICAL AUXILIARY

MRS. J. THERON HUNTER, Topeka
Chairman of Publicity

Now is the time to think of vacations and plans—no doubt numbers of doctors all over the United States are going to the convention in Milwaukee—and it looks as though this time the wives have a delightful week planned for them.

For Auxiliary women and all other wives of physicians, here is the Preliminary Program of the convention in Milwaukee followed by such an invitation as will warm your heart, fire your imagination and, we hope, crystallize your determination to join the forces gathering at Milwaukee, June 12-16, 1933.

HEADQUARTERS

Hotel Pfister, Milwaukee, Wisconsin.

MONDAY, JUNE 12, 1933

12:30 p.m.—Luncheon at College Woman's Club in honor of Past Presidents, followed by national board meeting and visit to American Medical Association exhibits at auditorium. Tickets $1.00.

7:00 p.m.—Dinner for national board, delegates, and wives of officers and delegates of the American Medical Association at Woman's Club of Wisconsin. Musical program furnished by artist members of Auxiliary to Medical Society of Milwaukee County. Tickets $1.25.

TUESDAY, JUNE 13, 1933

9:00 a.m.—General meeting—Roof Room, Hotel Pfister. Mrs. James Percy, presiding.

12:30 p.m.—Luncheon and bridge at the Wisconsin Club. Tickets $1.25.

2:00 p.m.—*Attractions available for those not wishing to play bridge are Layton Art Gallery, Milwaukee Art Institute, Milwaukee Museum, Curative Work Shop and Vocational School.

*Bus trip to county institutions, Milwaukee Children's Hospital Convalescent Home, and Washington Park Zoo.

8:00 p.m.—General meeting of American Medical Association.

10:00 p.m.—Informal dance at Wisconsin Club courtesy of State Medical Society of Wisconsin. Hostesses: Woman's Auxiliary to the State Medical Society of Wisconsin.

WEDNESDAY, JUNE 14, 1933

9:00 a.m.—General meeting—Roof Room, Hotel Pfister. Mrs. James Percy, presiding.

12:30 p.m.—Auxiliary Luncheon—Fern Room, Hotel Pfister. Guests and speakers from the American Medical Association. Musical program. Tickets $1.00.

4:00 p.m.—*Teas in private residences.

8:30 p.m.—Light Opera Tickets $1.00.

THURSDAY, JUNE 15, 1933

9:00 a.m.—General meeting—Roof Room, Hotel Pfister. Mrs. James Blake, presiding.

12:30 p.m.—Buffet luncheon—Crystal Room, Hotel Pfister. Tickets 75c.

12:00 Noon—Trip to Oconomowoc Lake District. Luncheon 12:30 p.m., Carnation Milk Plant, Oconomowoc. Wisconsin, Transportation and Luncheon courtesy of Carnation Milk Company.

2:00 p.m.—*Sight-seeing tour of Milwaukee.

*Bus transportation to be paid by individuals.

6:30 p.m.—"Bring Your Husband" Dinner—Fern Room, Hotel Pfister. International-House-Cabaret. Tickets $1.50.

9:00 p.m.—President's Reception and Ball—Schroeder Hotel. Hosts: The American Medical Association.

FRIDAY, JUNE 16, 1933

10:00 a.m.—Golf Tournament—All trips start from Hotel Pfister.

Mrs. Rock Sleyster, General Chairman.

Mrs. William Liefert, Chairman Hotel Committee, 4103 North Murray Avenue, Milwaukee, Wisconsin.

All women attending this Convention whether Auxiliary members or not are invited to participate in this entire program.

MILWAUKEE INVITES YOU

When you come to Milwaukee in June to attend the annual convention of the Woman's Auxiliary to the American Medical Association, you will find a store of pleasures awaiting you. First of all the program, as arranged by the local committees under the chairmanship of Mrs. Rock Sleyster, is completely arranged for your pleasure and entertainment; and secondly, the city of Milwaukee is such a friendly and hospitable metropolis that the combination will leave a pleasant impression upon your memory.

Milwaukee is situated on the western shore of Lake Michigan, the largest fresh water lake in the country. Its beautiful harbor is the deepest and one of the

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You may be surprised to know that besides being a commercial city, Milwaukee is really a beautiful residential city. Its parks and playgrounds scattered throughout the city cover an area of more than 1500 acres. These parks scattered along the lake shore and the courses of the rivers and dotted picturesquely throughout the city offer the comforts of beauty, recreation and rest to all who come to them.

Lake Park, the northeast edge of Milwaukee, is a fine expanse of woodland on Lake Michigan and its approach from the down-town district, along Lincoln Memorial Drive is one of the most beautiful features of the city. The Drive is a wide concrete boulevard extending for six miles along the lake shore, passing by the wild-life lagoon, the Coast Guard Station, the Yacht Club, the Gun Club, and many bathing beaches, and then leading directly into Lake Park from which it continues on through one of the exclusive residential districts.

Washington Park, on the west side of the city, has as its feature the nationally known Washington Park Zoo. It is the largest municipally owned animal exhibit in the United States. It boasts of a unique Monkey Island where thousands of people yearly watch the many different types of monkeys frolicking about unhampered on this island. Another new and recently completed attraction is a barless bear den, constructed as a natural refuge, separated from the onlookers only by a very deep moat from which the bear cannot escape.

Mitchell Park on the south side of town is famous for its conservatory and the wonderful displays of chrysanthemums, orchids and many rare flowers. In addition to this there is a formal sunken garden, most beautifully arranged and planned.

Be sure to avail yourselves of the privileges which Milwaukee women will afford you to see these and many other lovely parks and the surprisingly beautiful residential districts.

Down town you will find the hotels modern and clean, and convenient to all convention activities as well as to the shops and tea-rooms. The New Pfister Hotel, ("new" because it has been remodeled recently) is an old and famous hostelry where many of our country's presidents have stayed while in Milwaukee. You will particularly enjoy the noted and extremely valuable art collection on the mezzanine floor. This hotel as you know, will be our Auxiliary Headquarters.

There is another important but very different reason for your coming to Milwaukee this year. Chicago with its great World's Fair "The Century of Progress" is only 80 miles away or two short hours by bus, train, or electric. When ever before was it possible to make two such interesting and valuable trips in one?

Not only the doctors and doctors' wives but all of Milwaukee will welcome you most heartily when you come in June. Already the most minute plans for your pleasures and comforts are being made, and if you have any suggestions as to some particular service which you think our guests would appreciate, write the General Convention Chairman, Mrs. Rock Sleyster, 1220 Dewey Avenue, Wauwatosa, Wisconsin, and she will see that your wish is carried out if it is in any way possible.

Remember the dates, June 12-16 and begin now to tuck away the necessary dollars to make it possible for you to partake of the many benefits of the convention and of Milwaukee hospitality.

Accepted Devices for Physical Therapy

The following devices have been accepted by the Council on Physical Therapy of the American Medical Association for inclusion in its list of accepted devices for physical therapy:

Hoyland's Smax Not Acceptable—The Committee on Foods reports that the Hoyland Flour Mills Company, Kansas City, Mo., submitted a lightly toasted, coarsely ground wheat with fine flour removed called "Hoyland's Smax—All of the Wheat Toasted." The following statements appear on the package label: "Smax is extremely high in food value and containing all the bran is a natural laxative. Because of its high phosphorus and calcium content—in a natural state—Smax makes an ideal food for growing children. . . . Nature's food as nature intended." Calcium claims in public advertising for cereals are misinformative and misleading. The claim is suggestive of current whole wheat food faddism and, although meaningless in fact, is popularly cogent because of its vagueness. The manufacturer was informed of this opinion but has ignored letters giving the Committee's recommendations. This product, therefore, is not listed among the Committee's accepted foods. (Jour. A.M.A., February 25, 1933, p. 576.)

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TRUTH ABOUT MEDICINES

In addition to the articles enumerated in our letter of January 28 the following have been accepted:

Don Baxter Intravenous Products Corporation: Sterile 5 per cent Dextrose Solution in Vacoliter Container; Sterile 10 per cent Dextrose Solution in Vacoliter Container.

Hille Laboratories, Inc.: Colloidal Mercury Sulphide-Hille.

Hoffman-La Roche, Inc.: Ampules Scopolamine Stable-Roche, 1/100 gr., 1 cc.

The following products have been included in the List of Articles and Brands Accepted by the Council But Not Described in N.N.R. (New and Nonofficial Remedies, 1932, p. 487):

Don Baxter Intravenous Products Corporation: Physiological Sodium Chloride Solution in Vacoliter Containers.

The following products have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association for inclusion in New and Nonofficial Remedies:

Diphtheria Toxoid—U.S.S.P.—A diphtheria toxoid (New and Nonofficial Remedies, 1932, p. 370) prepared from diphtheria toxin whose L+ dose is 0.2 cc. or less by treatment with formaldehyde. The product is standardized to contain in 2 cc. enough of the toxoid for one immunization treatment. It is marketed in packages of two 1 cc. vials; in packages of twenty 1 cc. vials; in packages of one 6 cc. vial; in packages of one 20 cc. vial; and in packages of one 30 cc. vial. United States Standard Products Company, Woodworth, Wis.

Maltine with Mineral Oil and Cascara Sagrada.—A mixture of liquid petrolatum (New and Nonofficial Remedies, 1932, p. 245), 40 cc. and Maltine (New and Nonofficial Remedies, 1932, p. 273), 60 cc. containing a non-bitter extract of cascara sagrada representing 2.2 gm. of cascara sagrada per 100 cc. The Maltine Co., Brooklyn, N. Y. (Jour. A.M.A., February 11, 1933, p. 411.)

Sterile 5 per cent Dextrose Solution in Vacoliter Container.—Each 100 cc. contains dextrose, U.S.P. (New and Nonofficial Remedies, 1932, p. 262), 5.25 gm. Don Baxter Intravenous Products Corporation, Chicago.

Sterile 10 per cent Dextrose Solution in Vacoliter Container.—Each 100 cc. contains dextrose, U.S.P. (New and Nonofficial Remedies, 1932, p. 262), 10.5 gm. Don Baxter Intravenous Products Corporation, Chicago.

Ampules Scopolamine Stable-Roche, 1/100 gr., 1 cc.—Each ampule contains 1.2 cc. (1 cc. contains 0.0006 gm. of scopolamine hydrobromide). Hoffmann-Le Roche, Inc., Nutley, N. J. (Jour. A.M.A., February 25, 1933, p. 574.)

Foods

The following products have been accepted by the Committee on Foods of the American Medical Association for in-

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clusion in Accepted Foods:

Prune Krush Brand California Pure Prune Pulp (California Fruit Krush Co., San Francisco).—Cooked, pureed prune pulp; in tins. It is claimed to be used for all table uses of prunes, is laxative and may be used in soft diets.

Pfizer Citric Acid, Anhydrous (Charles Pfizer & Co,. Inc., Brooklyn).—Coarse granular, fine granular or powdered anhydrous citric acid meeting all U.S.P. tests for hydrated citric acid for purity; assaying not less than 108.8 per cent as U.S.P. citric acid. It is for use in foods when an organic acidulent is desired.

Morton's Iodized Salt (Morton Salt Company, Chicago).—Table salt containing 0.023 per cent potassium iodide, 0.1 per cent sodium carbonate and 0.7 per cent magnesium carbonate. The iodine in the salt aids in preventing goiter caused by insufficient iodine in the diet.

Heinz Pure (Virgin) Olive Oil (H. J. Heinz Company, Pittsburgh).—Imported first cold press (virgin) Spanish olive oil. It is claimed to comply with U.S.P. and U. S. Department of Agriculture requirements. (Jour. A.M.A., February 18, 1933, p. 499.)

Pantry Table Cream (S.M.A. Corporation, Cleveland).—Canned sterile homogenized cream of 18 per cent milk-fat content.

Heinz Strained Spinach (H. J. Heinz Company, Pittsburgh).—Canned comminuted and strained cooked spinach retaining in high degree the mineral and vitamin contents of the natural product. (Jour. A.M.A., February 25, 1933, p. 576.)

Propaganda for Reform

Some Endocrine Preparations of the Rovin Laboratories not Acceptable for N.N.R.—The Council on Pharmacy and Chemistry reports that the A. M. Rovin Laboratories, Inc., Detroit, submitted for consideration a series of "uniglandular" products. The firm submitted no advertising for the products but presented descriptions and statements of the claims made for the various preparations, together with trade packages of each. The Council declared Corpus Luteum Solution (Rovin), Kidney Solution (Rovin), Lymphatic Solution (Rovin), Mammary Solution (Rovin), Ovarian Solution (Rovin), Ovarian Residue Solution (Rovin), Thyroid Solution (Rovin), Pituitary Anterior Lobe Solution (Rovin), Suprarenal Gland Solution (Rovin), Suprarenal Cortex Solution (Rovin), Thymus Solution (Rovin), Spleen Solution (Rovin), and Prostate Gland Solution (Rovin) unacceptable for New and Nonofficial Remedies because they are products of indefinite composition and of undemonstrated therapeutic value; and declared Pituitary Anterior Lobe Sex Hormone Solution (Rovin), Liver Solution (Rovin), and Orchic Extract (Rovin) unacceptable because they are products of undemonstrated therapeutic value. (Jour. A.M.A., February 25, 1933, p. 574.)

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Reprints of original articles will be furnished the authors at the following rates, if the order for same is received within fifteen days after the Journal is mailed. These prices are based on the number of pages of the Journal the article occupies:

Three pages or less, first 100, $7.50; additional 100s, $2.00. Four pages, $10.00; additional 100s, $2.50. Five pages, $12.00; additional 100s, $3.50. Six pages, $15.00; additional 100s, $4.50. Seven pages, $17.00; additional 100s, $5.50. Eight pages, $20.00; additional 100s, $6.00.

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Members of the Component County Societies are members of the Kansas Medical Society. Physicians residing in counties where no County Society exists may join the society of an adjoining county. Physicians residing where no County Society exists, who are members of a district or other independent society approved by the Council, may be admitted to membership.

ANNUAL DUES due on or before February 1st of each year.

Dues should be paid to the Secretary of the Component County Medical Society.

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Senile melancholia has always been a common condition. It results from a combination of diseases. First, there is usually a slight general breakdown of essential bodily functions. Arteriosclerosis develops, indigestion is common and bladder and bowel disturbances become more evident. With these conditions and their symptoms confronting the patients, they realize their advanced age and, if their environment gives them reason to feel insecure, they worry and gradually fall into a hopeless, don't-care attitude. This attitude, by restricting their interests, aggravates the above psychic disturbances and their ideas turn to distrust of their children, paranoiac tendencies develop, and suicide is a common thought and is often acted upon.

The treatment consists of removing as many symptoms as possible of the underlying physical ailment. Environment must be changed and they must be protected from themselves. Tonics to improve the nervous tone, are important, while sleep must be secured for them by sedatives. Tincture of Opium is perhaps the best drug to use in an emotional or psychic emergency.

Airplane View
—Courtesy Curtiss-Wright Flying Service

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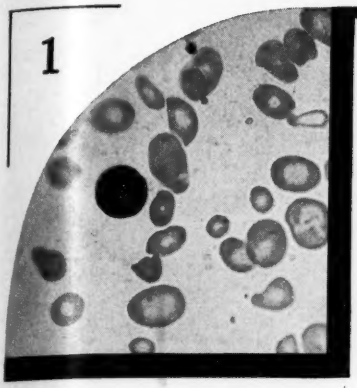
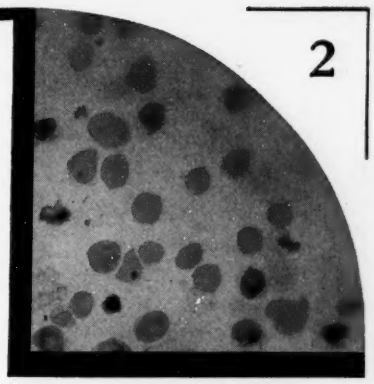


At left—Pernicious Anemia pretreatment level. R. B. C. 820,000 per cu. mm.; Hb. 17%. Started Ventriculin 40 Gm. daily.

At right—Fourth day of treatment. Reticulocytes 54%; R. B. C. 1,120,000 per cu. mm.; Hb. 24%.



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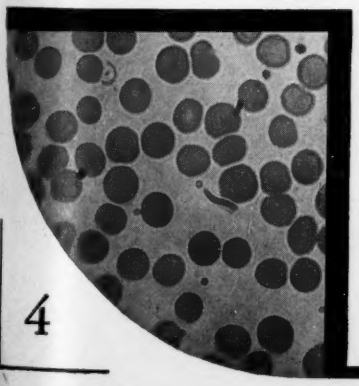
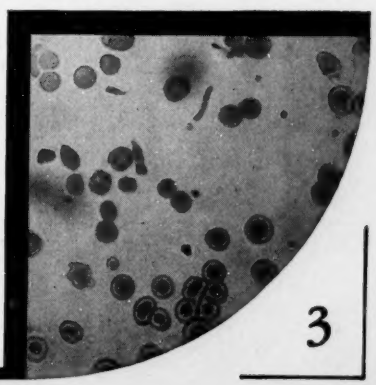


At right—Seventeenth day of treatment. R.B.C. 2,440,000 per cu. mm.; Hb. 56%.

At left—Sixty-sixth day of treatment. R.B.C. 4,610,000 per cu. mm.; Hb. 84%.



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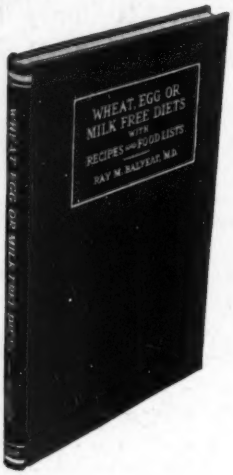

WHEAT, EGG OR MILK-FREE

DIETS

WITH RECIPES AND FOOD LISTS

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Associate Professor of Medicine and Lecturer on Diseases due to Allergy, University of Oklahoma Medical School; Director, Balyeat Hay Fever and Asthma Clinic, Assisted by

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Section, Pediatrics

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Doctors and patients alike have found it difficult to remove wheat, eggs or milk from the diet. This book gives lists of foods that contain wheat, eggs or milk, and assembles recipes that are wheat-free, egg-free, and milk-free.

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A complete list of foods containing wheat, foods containing eggs, and foods containing milk, is given, and lists of foods free from wheat, free from eggs, and free from milk, are suggested. These lists, or similar ones, are extremely important for any doctor prescribing an egg-free, milk-free, or wheat-free diet.

Chapters on body food requirements; food values; special diets; food lists; height and weight tables; and removable food diary lists, are found in the book.

The material has been arranged to assist physicians and dietitians in the selection of food lists and menus for wheat, egg or milk-sensitive patients, and to make easier the task of those who actually prepare their diets.

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